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# GLOSSARY, ACRONYMS, ABBREVIATIONS

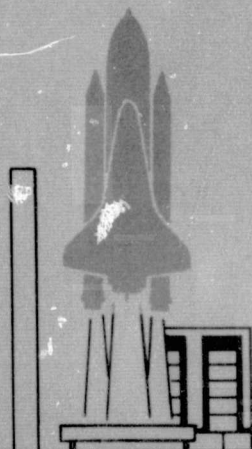
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## SPACE TRANSPORTATION SYSTEM AND ASSOCIATED PAYLOADS

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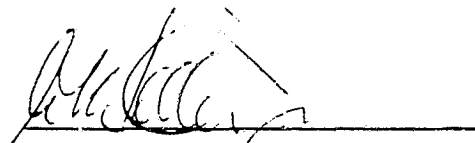
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# **GLOSSARY, ACRONYMS, ABBREVIATIONS**

**GP-1652, Rev 5  
July 30, 1978**

## **SPACE TRANSPORTATION SYSTEM AND ASSOCIATED PAYLOADS**

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## F O R E W O R D

This document was prepared in order to facilitate communications for the Space Transportation System (STS) and Associated Payloads (see Glossary for definitions). It contains a glossary and a listing of Acronyms and Abbreviations in current use, and is intended for use by those who write/interpret/prepare material for publication relative to the Space Transportation System.

It is recognized that the listing is not all inclusive or complete. This document will periodically be updated to provide a current listing of all approved STS and Associated Payloads acronyms and abbreviations.

Recommendations relative to this listing should be directed to:

Dr. A. M. Koller, Jr., SP-MPC, 867-2126

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STD-L-E  
NWSI-D (200 copies)

## SECTION I

### GLOSSARY

This section contains a glossary of terms (and definitions) in current usage for the Space Transportation System (STS) and Associated Payloads.

#### ACCEPTANCE TESTS

Tests to determine that a part, component, subsystem, or facility is capable of meeting performance requirements prescribed in purchase specifications or other documents specifying what constitutes the adequate performance capability for the item.

#### ASSEMBLY

A number of parts, or subassemblies and/or any combination thereof, joined together to perform a specific function and capable of disassembly. The distinction between an assembly and a subassembly is determined by the individual application. An assembly in one instance may be a subassembly in another, where it forms a portion of an assembly.

#### ATTACHING PART

An item used to attach assemblies or parts to the equipment, or to each other.

#### AUTOMATED PAYLOADS

Those payloads which are supported by an unmanned spacecraft capable of operating independently of the Space Transportation System (STS).

#### AUXILIARY STAGE

A small propulsion unit used with a payload, when required. One or more of these units may be used with a payload, to provide the additional velocity required to place a payload in the desired orbit or trajectory.

A propulsion system that is used to provide midcourse trajectory corrections, braking maneuvers, and/or orbital adjustments.

#### BILL OF WORK (BOW)

A detailed work schedule which lists all Operation & Maintenance (O&M) tasks required to be performed at each work station for a specific vehicle turnaround. It also contains applicable information such as sequence of performance, O&M instruction number, work authorization number, time allocated, manpower, skill level, and the start and completion data.

#### CARGO

Everything contained in the Shuttle Payload Bay plus other equipment located elsewhere in the Orbiter which is user unique and not carried in the standard baseline Orbiter weight budget.

#### CERTIFICATION

Formal documentation that the individual has reached the prescribed skill or knowledge level as cited in a NASA/KSC specification, contract specification, or other appropriate documents.

#### COMMERCIAL PART OR ITEM

A part or item which is manufactured primarily for the commercial rather than the Government market and having both commercial and Government applications. Commercial parts also include parts which are manufactured in accordance with normal commercial quality controlled production runs which meet or exceed the requirements of Government specifications or standards.

#### COMPONENT

An assembly or any combination of parts, subassemblies and assemblies and assemblies mounted together and normally capable of independent operation in a variety of situations.

#### CONCURRENT DELIVERY

The delivery of support items concurrently with the end item being provisioned.

#### CONDITION MONITORED

Those items that have neither limited life nor on-condition maintenance as their primary maintenance process. Condition monitoring is accomplished mainly by in-place instrumentation, sampling, and subsequent trending analysis which provides data to predict an incipient failure.

#### CONSTRUCTION AWARD

The effective date of direction from the KSC contracting officer to the selected contractor authorizing commencement of work. Issue of the notice of award by the KSC procurement office completes this milestone.

#### CONSTRUCTION COMPLETE

Appropriate facility construction is complete and the facility is available for equipment installation. Certification by the DE site activation office completes this milestone.

#### CONTRACT AWARD

The effective date of direction from the KSC contracting office to the selected contractor authorizing commencement of work. Issue of notice of the award by the KSC procurement office completes this milestone.

#### CONTRACTOR

The supplier of the end item and associated support items to the Government under the terms of a specific contract.

#### CUSTOMER (or USER)

An organization or individual requiring the services of the Space Transportation System.

#### DEDICATED SPACELAB

An extension module devoted to a single discipline which may fly more than once a year for several years, and which may be assigned to a payload development center.

#### DESIGN CHANGE

A NASA approved engineering change incorporated into the end item which modifies, adds to, deletes, or supersedes parts in the end item.

#### DESIGN REVIEWS

Critical Design Review (CDR). The completion of a meeting chaired by the KSC Shuttle Projects Manager, or his designated representative, to assure that the completed designs are in consonance with Level II and project specifications.

Preliminary Design Review (PDR). The completion of a meeting chaired by the KSC Shuttle Projects Manager, or his designated representative, at which preliminary designs are reviewed with prime contractors to assure compliance with system and project requirements.

30% Design Review. A meeting chaired by the responsible DE project engineer, or his designated representative, at which preliminary designs are reviewed to assure satisfaction of system and project requirements.

90% Design Review. A meeting chaired by the responsible DE project engineer, or his designated representative, at which final designs are reviewed to assure compliance with system and project specifications.

#### DRAWINGS

Graphic data, including drawings as defined in MIL-STD-100A and prepared in accordance with MIL-D-1000, Category D, aperture cards in accordance with MIL-C-9877; graphs, or diagrams, industry standards and industry specifications, on which details are represented with sufficient information to define completely, directly or by reference, the end result in the selection, procurement, and manufacture of the item required.

#### END ARTICLE/END ITEM

A physical element of the Space Transportation System. It is a functional physical entity related and selected for the purpose of system development, procurement, and logistics.

#### END ITEM

A final combination of end products, components parts, or materials which is ready for its intended use; e.g., Orbiter, receiver, amplifier, recorder, ground support equipment, etc.

#### ESTIMATED ON DOCK (EOD) DATE

The date the equipment is forecast to arrive on-dock at KSC. Initially, this date should coincide with the desired contract delivery date for purchased equipment. Subsequent to contract award, the date will reflect the vendor's estimate of his ability to deliver.

#### EXPERIMENT

The system of hardware, software, and procedures for performance of a scientific or applications investigation undertaken to:

- Discover unknown phenomena
- Establish the basis of known laws
- Evaluate applications processes and/or equipment

#### FACILITY NEED DATE

That date when the appropriate facility is required to receive program hardware (Orbiter, SRB, ET) for test and checkout. First operational use of the facility completes this milestone.

#### FAILURE MODES AND EFFECTS CRITICALITY ANALYSIS (FMECA)

An analysis to determine a LRU/SRU method and frequency of failure and the resulting effects.

#### FEDERAL ITEM IDENTIFICATION

A complete description in accordance with FED-STD-SD.

#### FEDERAL SUPPLY CODE FOR MANUFACTURERS (FSCM)

Provides a nonsignificant code assigned to identify manufacturers. Normally used with the Manufacturer's Part Number (see Federal Cataloging Handbooks H4-1 and H4-2 for codes).

#### FIRST MANNED ORBITAL FLIGHT (FMOF)

Liftoff of the first manned Space Shuttle from the launch pad at KSC on the first manned orbital flight. Vehicle flight beyond "tower clear" completes this milestone. Subsequent flights use similar definitions.



#### FLIGHT

That portion of a mission encompassing the period from Launch to Landing, or Launch to Termination, of the active life of a spacecraft. The term Shuttle "Flight" means a single Shuttle round trip (its launch, orbital activity, and return). One flight might deliver more than one payload. More than one flight might be required to accomplish one mission.

#### FLIGHT READINESS FIRING (FRF)

First Shuttle vehicle is stacked on the launch pad, and a Countdown Demonstration Test (CDDT) performed (designed to duplicate to the fullest possible extent an actual launch countdown). Propellant loading occurs in normal launch sequence, culminating a 20-second flight readiness firing. Engine shutdown after 20 seconds of sustained firing completes this milestone.

#### FREE FLYER

Any payload that is detached from the Orbiter during the operational phase of that payload, and is capable of independent operations.

#### GROUND SUPPORT EQUIPMENT (GSE)

Non-flight equipment, implements and the devices required for the handling, servicing, inspection, testing, maintenance, alignment, adjustment, check, repair and overhaul of an operational end item or a sub-system or component thereof. This may include equipment required to support another item of ground support equipment as defined herein.

#### HARDWARE DEVELOPMENT COMPLETE

The date all hardware manufacture/procurement has been completed, and hardware is ready to be delivered under terms of the contract. Notification from the contractor to the responsible KSC office completes this milestone.

#### INDENTURE

A method of showing relationships to indicate dependence and an order of dependence. Indenturing provides a top down breakdown of an item into its assemblies, subassemblies, components, and parts.

#### INITIAL DELIVERY

The date of delivery for the first item of equipment to be delivered under terms of the contract. Acceptance of the equipment by the DE site activation office completes this milestone.

#### INITIAL OPERATIONAL CAPABILITY (IOC)

Point in time at which the first operational configured Space Shuttle vehicle is prepared for flight. Successful completion of DDT&E and certification of flight hardware completes this milestone.

### INITIAL OUTFITTING/LAY-IN

The positioning of support items at user levels and at intermediate supply and maintenance levels as initial issues in anticipated support of newly deployed end items.

### INSTALLATION COMPLETE

That date when the DE site activation office declares the complete system has been installed at the facility. Certification by the DE site activation office completes this milestone.

### IN-STORAGE MAINTENANCE

The actions performed on a stored item to retain it in a specified condition by providing systematic inspection, detection and prevention of deterioration.

### INTEGRATED LOGISTICS

Those interrelated processes which identify and provide the service and resources (hardware and data) required to achieve an economical and timely support of operations. The principal processes are: logistics engineering analyses, maintainability, maintenance, operational maintenance documentation, supply, transportation/packaging, training, and logistics management information.

### INTEGRATION

A combination of activities and processes to assemble components, subsystems, and system elements into desired configuration, and to verify compatibility between the constituents of the assembly.

### INTEGRATION LEVELS

- Level I- Cargo/Shuttle Integration; Integration into the Orbiter of everything that goes on a single Shuttle flight.
- Level II- Element into Cargo Integration; Assembly of Spacecraft elements and/or free flyers (with or without Tug) into a cargo for a single Shuttle flight.
- Level III- Instrument to Supporting System Integration; Integration of one or more instrument assemblies with Spacelab elements (extension module and/or pallet) or the free flyer payload.
- Level IV- Instrument Assembly Integration; Assembly of individual instruments and their unique supporting subsystem into a compatible package of equipment to accomplish specific mission objectives on a given flight.

### INTERFACE

The mechanical, electrical, and operational common boundary between two constituents of a system.

#### INTERIM RELEASE

Authorization given a contractor to release support items to production or procurement simultaneously with his production requirements for like items prior to submission of a Spare Parts Order.

#### INTERIM UPPER STAGE (IUS)

An upper stage capable of being launched in the cargo bay of the Orbiter, and intended for use prior to the availability of the Space Tug. As presently planned, it will be a modification of an existing stage, may or may not be retrievable for reuse, and will be capable of the delivery but not the retrieval of payloads.

#### INVITATION FOR BIDS (IFB)

That point in time when the complete assembly of documents related to a particular contract award will be provided to the prospective bidders by a formal advertisement for the purpose of competitive bidding. Issue of the invitation by the KSC procurement office completes this milestone.

#### ITEM

Any level of hardware assembly (system, element, subsystem, equipment, component, or part).

#### K-FACTORS

A series of terms used to derate Meantime Between Failure (MTBF) to a Meantime Between Demand (MTBD) on the supply system. Four examples are:

$K_1$  Engineering correction based on LRU complexity, greater than 1

$K_2$  Total failure ratio to relevant failure, greater than 1

$K_3$  Ratio of operating hours to flying hours

$K_4$  Ratio of demands on supply system to failures

$$MTBD = \frac{MTBF}{K_1 \times K_2 \times K_3 \times K_4}$$

#### LAUNCH PAD

The pad area from which the Space Shuttle will be launched. The stacked Space Shuttle will undergo final prelaunch checkout and countdown at the launch pad.

#### LAUNCH PROCESSING SYSTEM (LPS)

A high speed digital computer operated checkout system used to support test, checkout, launch control, and operational management of launch site ground operations at KSC.

#### LAUNCH PROCESSING SYSTEM (LPS) SUPPORT AVAILABLE

Point in time when LPS for a given facility is ready for use by KSC test personnel. Certification by the DE site activation office completes this milestone.

#### LEVEL OF REPAIR ANALYSIS (LORA)

A process for recommending repair levels of LRUs, SRUs, assemblies, and sub-assemblies which will accrue minimum total support costs within operational and technical constraints over the system design life. It forms the basis for assigning repair level; repair versus discard-at-failure decision; repair parts provisioning; Source, Maintenance, and Recoverability (SMR) coding; maintenance planning, and documentation.

#### LINE REPLACEABLE UNIT (LRU)

Any item whose replacement constitutes the optimum organizational maintenance repair action for a higher indenture item (i.e., any assembly which can be removed and replaced as a unit from the system at the operating location).

#### LOGISTICS ENGINEERING ANALYSES (LEA)

A composite of analysis techniques which are used to identify the necessary logistics resources to support operation and maintenance functions in a timely and economical manner. This includes training, level of repair, spares determination analyses, etc.

#### LONG LEADTIME ITEMS

Those items which because of their complexity of design, complicated manufacturing processes, or limited production, may cause production or procurement cycles which would preclude timely or adequate delivery, if not ordered in advance of normal provisioning.

#### MAINTAINABILITY (M)

A characteristic of an item created during design and/or operation which enables the item to be retained in a specified condition acceptable rate, using prescribed procedures.

#### MAINTENANCE

The actions taken to retain an item in a specified condition by providing systematic inspecting, detecting, and servicing for the prevention of incipient failure and the action taken to restore an item to a specified operational condition. This includes fault isolation, item replacement, repair and verify serviceable.

### MAINTENANCE CONCEPT

A description of the planned method for accomplishing maintenance.  
A thought process which relates the maintenance tasks to be performed to the maintenance levels to support the operation of the system/equipment in the planned operational environment.

### MAINTENANCE ENGINEERING ANALYSIS (MEA)

An analysis of contract end item/LRU/SRU or equivalent items which defines the repair tasks necessary to restore a system to operational condition utilizing the maintenance philosophy, maintainability characteristics and other factors.

### MAINTENANCE GROUND EQUIPMENT (MGE)

The equipment which is used to support the maintenance operations for vehicle, payload, stages, facilities, or other MGE.

### MAINTENANCE LEVELS

All maintenance functions performed either directly on the vehicle or in a supporting role categorized in one of the following three categories:

- a. Organizational Level - Maintenance performed on vehicle subsystems and related support equipment in direct support of the turnaround flow. It includes scheduled and unscheduled maintenance actions required to inspect, service, calibrate, replace, repair and modify in-place, and reverify (sub)systems and associated components.
- b. Intermediate Level - Maintenance that is performed in direct support of organizational level maintenance and involves disposition, repair, service, modification, calibration, and verification of items removed during organizational maintenance.
- c. Depot Level - Maintenance that is performed by designated maintenance sources; e.g., manufacturers, USAF Air Logistics Centers, NASA Centers, etc. It normally consists of maintenance that requires MGE, facilities, or skills which are not economically available at the intermediate level; e.g., repairing, modifying, overhauling, reclaiming, or rebuilding parts, assemblies, subassemblies, components, and end items, manufacturing of unavailable parts; and providing technical assistance to the organizational and intermediate maintenance levels.

### MAINTENANCE TRAINING

Detailed work-oriented instructions on servicing, maintenance, overhaul, and repair of product end items, including support and facilities equipment.

#### MANAGEMENT CODING

The assignment of codes consisting of letters and/or numerals to support items to record management decisions, such as sources for resupply, prescribed levels of maintenance, item managers, and other management data.

#### MATERIAL SERVICE CENTERS (MSC)

An activity established adjacent to a facility or work area concentration for the purpose of furnishing supply support and supply support services to all organizations and functional activities in the immediate area(s) which require such service. Each MSC will provide a single point of contact with the KSC supply system, and will receive, stock, and issue material and supplies required by the area(s) served.

#### MISSION

The performance of a coherent set of investigations or operations in space to achieve program goals.

Examples:

Measure detailed structure of Sun's chromosphere.  
Survey mineral resources of North America.

#### MOBILE LAUNCHER PLATFORM (MLP)

The elements of the Space Shuttle will be stacked upon the mobile launch platform while in the Vehicle Assembly Building (VAB). After stacking, it will be rolled out to the launch pad.

#### MODIFICATION COMPLETE

That date when existing facilities at KSC have been modified. Certification by the DE site activation office completes this milestone.

#### MULTIPLE PAYLOADS

More than one separate payload carried in the cargo bay.

#### MULTIPURPOSE SPACELAB

An extension module involving a variety of disciplines usually for specific flights, and which may require the services of a payload integrator or agent.

#### NATIONAL STOCK NUMBER (NSN)

A discrete identifying number assigned to each item of supply within the Federal Catalog System. A data chain consisting of the four digit Federal Supply Classification, two digit Country Code and seven digit Federal Item Identification Number in that order. May have a two character Dual Cognizance Code and one character Material Control Code prefix, and a two character Special Material Identification Code suffix.

### OFF-LINE

An activity conducted (by a payload owner) independent of any STS element (i.e., Tug, Spacelab, or Shuttle). This normally means the activity is conducted in a separate facility as well.

### OFF-LINE MAINTENANCE

That maintenance function performed at the intermediate and depot maintenance levels.

### ON-CONDITION MAINTENANCE

Those items, which will remain in place until an assessment of the item's condition indicates that removal is required, are classified as on-condition items. The assessments are made at intervals determined by the item's failure characteristics, and many consist of inspections, measurements, test, or any other means not requiring disassembly or removal of the item.

### ON-LINE MAINTENANCE

That maintenance function performed at the organizational level.

### ON-LINE (STS)

An activity conducted with payload and one or more STS elements. This is broken down as follows:

- On-Line Shuttle; An activity encompassing a payload, its carrier, and the Shuttle Vehicle.
- On-Line Spacelab; An activity encompassing a payload and its Spacelab.
- On-Line Tug/IUS; An activity involving a payload and the Tug/IUS.

### ON-THE-JOB TRAINING (OJT)

A planned program which augments classroom training through self-study and supervised instruction to provide expanded knowledge and job proficiency while the trainee is actually working in a duty assignment.

### OPERATIONS AND MAINTENANCE DOCUMENTATION (OMD)

OMD includes: engineering drawings and lists, Organizational Operations and Maintenance (OM) manuals including OMIs; Standard Repair manuals, Illustrated Parts Breakdowns (IPBs), Intermediate Maintenance manuals, Depot Maintenance manuals, Non-destructive Inspection manuals, Work Unit Code (WUC) manuals, Time Compliance Technical Instructions (TCTIs).

#### OPERATIONS AND MAINTENANCE MANUALS (OM)

OM manuals are organized procedural information specifying methods of operating and maintaining flight hardware and support equipment. OM manuals will be used in the performance of day-to-day operations and maintenance tasks.

#### OPERATIONAL CHECKOUT

That period of time when the Operations and Maintenance (O&M) organization performs crew training, simulations, and procedural familiarization prior to first use on flight hardware. Certification of ground test and checkout crew readiness to support the assigned mission prior to receipt of flight hardware completes this period.

#### OPERATIONAL READINESS DATE (ORD)

That date when a facility, including all systems and equipment, is operationally ready and is turned over to the user/operator for operational training and systems familiarization prior to first use in support of flight hardware checkout. Certification by the DE site activation office completes this milestone.

#### OPERATOR NEED DATE

The date the KSC operator (O&M organization) requires the equipment/GSE to be made available to them, to accomplish any remaining work required prior to first use.

#### OPTIMUM REPAIR LEVEL

The maintenance level selected to perform specific tasks and functions for a given equipment item. The decision to repair equipment at the indicated maintenance level requires that all authorized maintenance capability (remove, replace, assembly, or test) be provided to that level. This does not prevent some repair from being done at a different level of maintenance for a different task.

#### OPTIMUM REPAIR LEVEL ANALYSIS (ORLA)

See "Level of Repair Analysis".

#### ORBITER PROCESSING FACILITY (OPF)

This is a building at KSC with two bays in which the Orbiter undergoes post flight inspection, maintenance, and premate checkout prior to payload installation.

#### ORGANIC SUPPORT

In-house NASA/DOD assumption of intermediate or depot supply and maintenance activity vis-a-vis contractor/vendor support.



#### OUTFITTING AWARD

The effective date of direction from the KSC contracting officer to the selected contractor authorizing commencement of work. Issue of notice of the award by the KSC procurement office completes this milestone.

#### OUTFITTING COMPLETE

That date when all systems/equipment has been emplaced. Certification by DE site activation office completes this milestone.

#### PALLET

An external unpressurized platform for mounting telescopes, antennas, and other instruments and equipment requiring direct space exposure for conducting science and applications activities on Space Shuttle Spacelab missions. The pallet may be composed of segments.

#### PART

One piece, or two or more pieces, joined together which are not normally subject to disassembly without destruction or impairment of designed use.

#### PAYLOAD CHANGEOUT ROOM

An environmentally controlled room on a movable support structure which includes a manipulator system for transferring a payload vertically between a transport canister and the Orbiter payload bay.

#### PECULIAR PART

Any part which must be produced to order in accordance with a particular drawing and/or specification. Any part requiring flight certification shall be classified peculiar. Also, normally standard parts that must be selectively accepted (to criteria different from the usual standard part requirements) shall be considered peculiar.

#### PHASED PROVISIONING

A refinement to the provisioning process whereby procurement of selected items is phased by time interval into the later stages of production, thereby enhancing the ability of the provisioning activity to select the most favorable mix of requirements.

#### PRELIMINARY ENGINEERING REPORT (PER) - FINAL RELEASE

That date when preliminary engineering is complete and the final documentation has been released. Distribution of the final documentation completes this milestone.

#### PRICED SPARE PARTS LIST

A priced list of items and quantities of spare parts selected for procurement under the contract.

#### PROCURE/FABRICATE COMPLETE

That date when all procurement and fabrication for a particular facility has been finished. Certified acceptance by the DE site activation office completes this milestone.

#### PROCUREMENT METHOD CODE (PMC)

The contractor will use alpha-suffix codes (6, 7 or 8) contained in MIL-STD-789B to communicate his reason for assignment of a Contractor Recommended Code (CRC). Procurement Method Codes (1 through 5) will always be assigned by Government representatives (KSC Provisioning Team) from the CRC codes furnished by the contractor.

#### PROGRAM

An activity involving manpower, material, funding, and scheduling which are necessary to achieve desired goals (i.e., Shuttle Program, Solar Astronomy Program, etc.,).

#### PROGRAMMING CHECK LIST (PCL)

Is used to provide data governing initial provisioning for end items of Shuttle hardware and related support equipment.

#### PROVISIONING ACTIVITY

The KSC Provisioning Team, Shuttle Project Office, which is responsible for the selection of, and the determination of requirements for, provisioned items.

#### PROVISIONING PERFORMANCE SCHEDULE (PPS)

Check List of entries including schedules in the provisioning process that is used to monitor such events.

#### PROVISIONING SCREENING

Provisioning Screening, when required by the Provisioning Requirements Statement, will be accomplished in accordance with DOD 4100.38M. Provisioning and other Preprocurement Screening Manual.

#### PROVISIONING SPECIFICATION

Is the contractual instrument to provide clear and concise instructions which will achieve the objective of providing adequate, timely and economical support, by need dates for systems and end items entering the inventory. It provides NASA with the flexibility in selecting minimum essential data for each specific procurement and provides the contractor the detailed guidance to fulfill provisioning requirements. The finalized Provisioning Requirements Statement and the Provisioning Specification shall be appended to the end item contract.

#### PROVISIONING TECHNICAL DOCUMENTATION (PTD)

Is the generic term used to reference the various types of Provisioning Lists, decks of Punch Cards, Mechanized (PCM) or Automatic Data Processing (ADP) tapes. PTD shall be furnished by contractors to KSC Provisioning Activities for the identification, selection, and determination of initial requirements and cataloging of support items to be procured through the provisioning process. Supplementary Provisioning Technical Documentation (SPTD) is also considered to be a part of PTD.

#### QUALITATIVE REQUIREMENTS

Qualitative requirements further amplify the maintenance concept to the designer conveying special features which the operator/user wants designed into the hardware. Specialized qualitative requirements to be considered for specification insertion are:

- Failure Detection
- Performance Degradation Detection
- Built-In Test Equipment (BITE)
- Adjustments
- GSE-Integrated/Automated/Manual
- Self-Test
- Skill Levels
- Special Tools
- Accessibility
- Interchangeability

#### QUANTITATIVE REQUIREMENTS

Quantitative requirements provide a firm goal (appointment of time available for maintenance) for the designer to meet his design and also provide a requirement whose goal can later be demonstrated during the verification period.

This type of quantitative requirement specified in a Maintainability activity must be responsive to the operational use of the equipment. Times may be specified in manhours, clockhours, or both. Maintenance times may also be broken out and levied for the various elements that comprise the total repair functions such as fault isolate, remove/replace or checkout. The requirement will also be specified for all applicable levels of maintenance; these are organizational, intermediate and depot. A listing of the common types of requirements to be considered are:

- Maintenance Hours/Launch
- Maintenance Hours/Operating Hour
- Mean Time To Repair
- Maximum Repair Time
- Scheduled Replacement Intervals
- Inspection Frequency and Maintenance Hours
- Servicing Frequency and Maintenance Hours

#### READY TO SUPPORT

That date when equipment/facilities are required to support project/facility milestone. First operational completes this milestone.

#### REORDER POINT

The inventory level, representing procurement lead time and safety level quantitative requirements as on-hand and on-order balances, at which spares item replenishment is to be initiated.

#### REPAIR PARTS

Those support items that are coded to be not repairable (i.e., Consumable Items).

#### REPAIRABLE ITEM

An item in unserviceable condition that can be economically repaired and returned to a serviceable condition.

Note: Repairable status is determined after failure occurs.

#### REPARABLE ITEM

An item, which because of economic and design characteristics, is determined to be subject to repair for return to use when it becomes unserviceable.

Note: This term reflects the logistics status rather than the physical status of the item. Reparable categorization is made before failure occurs.

#### REQUEST FOR PROPOSAL (RFP)

That point in time when the necessary documentation is issued to request proposals from prospective bidders prior to negotiation of a contract. Issue of the request by the KSC procurement office completes this milestone.

#### SAFETY TRAINING

Instructions which alert a trainee to those conditions or operations which could be substantially dangerous to the operator or other hazard that would damage equipment or property.

#### SCHEDULED DELIVERY

When NASA provides a required delivery schedule with each SPO, the contractor shall accept the order and within 30 days notify NASA of his acceptance of the schedule or provide a proposed line item delivery schedule for negotiation. The approved schedule will be incorporated into the contract by supplemental agreement.

#### SCHEDULED MAINTENANCE

Any repetitive maintenance action deemed necessary to insure the functional success of equipment including periodic servicing and replacement of time/cycle components.

#### SHARED EQUIPMENT NEED DATE (SEND)

The date equipment/GSE to be used at more than one location is required to support site activation activities at the secondary locations(s). The need date at the first user's location will be the (SEND) for that location.

#### SHOP REPLACEABLE UNIT (SRU)

Any item whose replacement constitutes the optimum, intermediate, or depot level of repair action, i.e., a module for an LRU which can be removed at an intermediate or depot repair facility.

#### SITE ACTIVATION NEED DATE (SAND)

The date equipment/GSE is required on-dock at KSC to support installation and validation. Uncrating, inspection, and handling time must be allowed in establishing the SAND.

#### SOURCE, MAINTENANCE AND RECOVERABILITY (SMR) CODE

An SMR code shall be recommended by the end item contractor or design agency for each component/part. The code will be used to communicate maintenance and supply instructions to the various support/maintenance activities.

#### SPACELAB

A laboratory designed for space operations and composed of modules or pallets suitable for accommodating instrumentation for conducting research and application activities on Shuttle sortie flights. On a given flight, the Spacelab configuration can be comprised of a module only, a pallet only, or a combination of a module and a pallet.

#### SPACE TRANSPORTATION SYSTEM (STS)

An integrated system consisting of:  
Space Shuttle (Orbiter, External Tank, Solid Rocket Boosters)  
Upper Stage for boost to extended orbit (IUS, SSUS, TUG)  
Spacelab  
Any associated flight hardware and software

#### SPACE TUG

An upper stage installed for launch, or recovery and landing, in the cargo bay of the Orbiter. Developed specifically with the capability for delivery, retrieval, and servicing of payloads in orbits and trajectories beyond the capability of the Shuttle alone. It is intended to be retrievable for refurbishing and multiple reuse.

#### SPARE PARTS ORDER

A spare parts provisioning list which has been approved by the NASA Contracting Office and released to the contractor for fabrication or procurement.

#### SPARES

Those support items that are coded to be repairable (i.e. Repairable Items).

#### SPECIAL TOOLS, TEST EQUIPMENT & SUPPORT EQUIPMENT

Those support items that have single/peculiar application to a specific end item.

#### STANDARD PART

Any part or item which is adequately defined by a recognized Government-wide or industry-associated standard drawing and/or specification, and is normally available from commercial, DSA, and/or GSA sources. (Examples of standard parts and items are nuts, bolts, washers, screws, pins, keys, grommets, rivets, o-rings, clips, fasteners, clamps, fittings, standard electrical and electronic components, etc.)

#### STATEMENT OF PRIOR SUBMISSION (SPS)

A certification by an offeror/contractor that Provisioning Technical Documentation previously furnished to the government may satisfy the immediate Provisioning Technical Documentation requirements, with or without changes, to update the PTD to the end item configuration to be or being procured.

#### STS ASSOCIATED PAYLOAD

A specific complement of instruments, space equipment, and support hardware carried to space to accomplish a mission (or discrete activity) in space.

#### SUBASSEMBLY

Two or more parts which form a portion of an assembly or a component replaceable as a whole, but having a part or parts which are individually replaceable. (Examples: telephone dial, mounting board with mounted parts.)

#### SUPPLEMENTARY PROVISIONING TECHNICAL DOCUMENTATION (SPTD)

Supplemental Provisioning Technical Documentation is technical data used to describe parts/equipment and consists of data such as specifications, standards, drawings, photographs, sketches and descriptions, and the necessary assembly and general arrangement drawings, schematic drawing, schematic diagrams, wiring and cable diagrams, etc. needed to indicate the location and function of the item. As a minimum, SPTD must be capable of providing for the

- (1) technical identification of items for maintenance support considerations,
- (2) preparation of item identifications for the purpose of assigning National Stock Numbers,
- (3) review for item entry control,
- (4) standardization,
- (5) review for potential interchangeability and substitutability,
- (6) item management coding,
- (7) preparation of stock/issue lists, and
- (8) initial procurement from the contractor or original manufacturer.

#### SUPPORT EQUIPMENT

Those support items that are not an integral part of an end item but are required in the operation of the end item.

#### SUPPORT EQUIPMENT INSTALLATION & CHECKOUT COMPLETE

That date when individual support equipment items have been completely installed and validated at the facility. Certification by the DE site activation office completes this milestone.

#### SUPPORT ITEMS

Items subordinate to, or associated with, an end item (i.e., spares, repair parts, tools, test equipment, support equipment, and sundry materials) and required to operate, service, repair or overhaul an end item.

#### SUPPORT REQUIREMENTS ANALYSIS (SRA)

An analysis accomplished during the system design to establish logistics support requirements. The analysis is a step-by-step process of predicting operational and maintenance activities and defining and documenting the required resources.

#### TRADE STUDIES

Studies conducted to compare alternative parameters, materials, or procedures.

#### TRAINING REQUIREMENTS ANALYSIS (TRA)

An analysis accomplished to determine the skill levels type and quantities necessary to support a maintenance philosophy, through maintenance engineering analysis or support requirements analysis.

#### UNSCHEDULED MAINTENANCE

Any maintenance activity required as a result of the random failures of equipment. It includes the restoration to a serviceable condition of a failed subsystem, end item, replacement package or unit, component, or part.

#### VALIDATION

Verification that the equipment/system meets the operational needs of the OM user and is part of the turnover process from the design agency to the OM agency.

#### VENDOR ITEM

An item which is used in or attached to the end time produced by the contractor under this contract; and which is procured by the contractor on the open market or from established sources and for which the contractor is not the design activity.

#### WORK STATION

A facility or functional area where either organizational level operations and maintenance tasks are performed in direct support of a turnaround cycle or intermediate and depot level maintenance tasks on Shuttle components or related GSE are performed.

#### WORK UNIT CODE (WUC)

A six alphanumeric character indented equipment identification code which uniquely identifies the entire system from top down to component level. It functionally identifies the system, subsystem, assembly, component and significant reparable part on which maintenance is to be performed.



## SECTION II

### ABBREVIATIONS & ACRONYMS

-A-

A	Ampere
	Alpha
	Acceleration
A&A	Advertise & Award
A/A	Air-to-Air
A/C	Associate Contractor
	Aircraft
A/D	Analog-to-Digital
A/G	Air-to-Ground
A/N	Alpha-Numeric
A/P	Airport
AA	Accelerated Assemblies
	Airplane Avionics
AA/AL	Airplane Avionics/Autoland
	Automatic Approach/Autoland
AAE	Abort Advisory Equipment
	Aerospace Auxiliary Equipment
AAFE	Advanced Applications Flight Equipment
AAIR	Advanced Atmospheric Sounder & Imaging Radiometer
AAS	Abort Advisory System
AB	Airborne
ABE	Airbreathing Engine
ABES	Airbreathing Engine System
ABM	Advanced Bill of Materials
ABPS	Airbreathing Propulsion Subsystem
AC	Alternating Current
ACC	Automatic Control Console
ACD	Accuracy Control Document
ACE	Automatic Checkout Equipment
ACCEL	Accelerometer
	Acceleration
ACCO	Audio Central Control Unit
ACES	Acceptance Checkout & Evaluation System
	Acceptance Control Equipment Section
ACIL	Automatic Controlled Instrument Landing
ACL	Allowable Container Load
ACN	Ascension Island
ACO	Acceptance Checkout
	Administrative Contracting Officer
ACP	Audio Control Panel
	Astronaut Control Panel
ACPM	Associate Contractor Program Manager
ACPO	Associate Contractor Projects Office
ACPS	Altitude Control Propulsion Subsystem
ACRS	Advisory Committee on Reactor Safeguards
ACS	Attitude Control System
	Automated Control System

ACT	Acquisition, Control of Test (Units)
ACTA	Activate Test Article
ADAP	Adaptive Intercommunication Requirement
ADB	Aerodynamic Data Book
ADC	Air Data Computer
	Analog-to-Digital Computer
ADF	Automatic Display Finder
	Automatic Direction Finder
ADI	Attitude Direction Indicator
ADL	Avionics Development Lab (Downey, CA)
ADP	Acceptance Data Package
	Automatic Data Processing
ADPA	Air Data Probe Assemblies
ADPE	Automatic Data Processing Equipment
ADS	Air Data System
ADTA	Air Data Transducer Assembly
A&E	Architectural & Engineering
AEC	Atomic Energy Commission
AEDC	Arnold Engineering Development Center
AF	Airframe
	Audio Frequency
	Aft Fuselage
AFAD	Armed Forces Acquisition Document
AFB	Air Force Base
AFC	Automatic Frequency Control
AFCS	Automatic Flight Control System
AFD	Aft Flight Deck
AFEB	Award Fee Evaluation Board
AFEC	Award Fee Evaluation Committee
AFETR	Air Force Eastern Test Range
AFF	Acceptance & Ferry Flight
AFFTC	Air Force Flight Test Center (Edwards AFB)
AFI	Automatic Fault Isolation
AFLC	Air Force Logistics Command
AFM	Air Force Manual
AFPD	Authorization for Program Development
AFO	Announced Flight Opportunity
AFR	Air Force Regulation
AFS	Air Force Standard
AFSC	Air Force Systems Command
AFSCF	Air Force Satellite Control Facility
AFSWC	Air Force Special Weapons Center (Holloman AFB)
AFT	Atmospheric Flight Test
	Aerodynamic Flight Test
AG	Artificial Gravity
AGC	Automatic Gain Control
AGE	Aerospace Ground Equipment
AGL	Above Ground Level
AGO	Santiago, Chile (STDN)
AGOES	Advanced Geosynchronous Observation Environment
	Satellite
AID	Abbreviated Item Description
AIDS	Airborne Integrated Data Subsystem

AIL	Avionics Integration Laboratories
AILS	Automatic Instrument Landing System
AIM	Automated Information Management
AIR	Adaptive Intercommunication Requirement
AIRME	Apollo Initiator Resistance Measuring Equipment
AIST	Agency of Industrial Science and Technology
AJ	Assembly Jig
A&L	Approach and Landing
AL	Airlock
ALAS	Approach Landing Autopilot Subsystem
ALC	Automatic Light Control
ALDO	Activity Level Dependent Operations
ALE	Airport Lighting Equipment
ALERT	Acute Launch Emergency Reliability Tip
ALIO	Activity Level Independent Operations
ALS	Alternate Landing Site
	Advance Logistics System
ALSA	Astronaut Life Support Equipment
ALSS	Airlock Support Subsystem
ALT	Approach & Landing Test
	Altitude
AM	Actuator Mechanism
	Ammeter
	Amplitude Modulation
AMA	Air Material Area
AMC	Automatic Mixture Control
AMDS	Advanced Missions Docking Subsystem
AMEC	Aft Master Events Controller
AMF	Abort Motor Facility
AMI	Alpha Mach Indicator
AMLC	Asynchronous Multiline Controller
AMOOS	Advanced Maneuvering Orbit-To-Orbit Shuttle
AMPR	Aeronautical Manufacturer's Planning Report
	Aeronautical Manufacturer's Progress Report
AMPS	Atmospheric Magnetospheric & Plasmas in Space
AMS	Acoustic Measurement System
	Amplifier Subsystem
AMST	Advanced Medium STOL Transport
AMTAS	Automatic Modal Tuning & Analysis System
AMTD	Automatic Magnetic Tape Dissemination
AMTF	Acoustic Model Test Facility
AN	Alpha Numeric
	Army/Navy
ANA	Air Force-Navy Aeronautical Bulletin
ANAL	Analysis
AND	Air Force-Navy Aeronautical Design Standard
ANL	Analog
ANSI	American National Standards Institute
ANT	Antigua (ETR)
AOA	Abort-Once Around
	Angle of Attack
AOCRD	Acceptance & Operational Checkout Requirements Document

AOPM	Airline Operations Planning Model
AOS	Acquisition of Signal
AOT	Avionics Overall Test
APA	Abort Programmer Assembly
APC	Advanced Propulsion Comparison Study
APIC	Automated Process Information File
APIRD	Authorized Procurement Information Requirements Description
APIRL	Authorized Procurement Information Requirements List
APK	Astronaut Preference Test
APLAC	Analysis Program For Linear Active Circuits
APPF	Automated Payload Processing Facility
APPLE	Advanced Propulsion Payload Effects
APR	Advanced Parts Release
APS	Aft Propulsion System (Subsystem)
	Airbreathing Propulsion System
APSS	Atmospheric Pressure Supply Subsystem
APU	Auxiliary Power Unit
AQL	Acceptance Quality Level
A&RC	Application and Resource Control
AR	Acceptance Review
ARAP	Astronaut Rescue Air Pack
ARC	Ames Research Center (Moffett Field, CA)
ARCS	Aft Reaction Control Subsystem
ARFDS	Automatic Reentry Flight Dynamics Simulator
ARINC	Aircraft Radio, Incorporated
ARPESH	Accurate & Reliable Prototype Earth Sensor Head
ARPF	Army Pulse Radiation Facility
ARS	Atmospheric Revitalization System
	Attitude Reference System
	Air Rescue Science
ASA	Aerosurface Servo Amplifier
	American Standards Association
ASAC	Aerodynamic Surface Assembly & Checkout
ASAP	As Soon As Possible
ASAS	Aerodynamic Stability Augmentation Subsystem
ASC	Aero Surface Control
ASCII	American Standard Code for Information Interchange
ASCP	Attitude Set Control Panel
ASCS	Attitude Stabilization & Control System
ASDTIC	Analog Signal to Discrete Time Interval Converter
ASE	Advanced Space Engine
	Automatic Support Equipment
ASG	Avionics Subsystem Group
ASI	Airspeed Indicator
	Augmented System Ignition
	Amended Shipping Instructions
	Augmented Spark Igniter
ASK	Amplitude-Shift-Keying
ASKA	Automatic Systems for Kinematic Analysis
ASLU	Antenna Select Logic Unit
ASME	American Society of Mechanical Engineers

ASP	Airborne Science Program
ASQC	American Society for Quality Control
ASR	Air/Sea Rescue
ASRM	Abort Solid Rocket Motor
ASS	Airlock Support Subsystem
ASSESS	Airborne Science Shuttle Experiments System Simulation
ASSY	Assembly
AST	Astronomy
ASTF	Aeropropulsion System Test Facility
ASTIA	Armed Services Technical Information Agency
ASTM	American Society for Testing Materials
ATA	Avionics Test Article
	Air Transport Association
	Abort Time Assembly
ATC	Air Traffic Control
ATCS	Active Thermal Control Subsystem
ATDB	Aerothermodynamic Data Book
ATE	Automatic Test Equipment
ATF	Auditorium & Training Facility
ATIS	Automatic Terminal Information System
ATL	Advanced Technology Laboratory
ATLAS	Abbreviated Test Language for Avionics Systems
ATO	Abort to Orbit
ATOLL	Acceptance, Test, Or Launch Language
ATP	Authority To Proceed
	Acceptance Test Procedure
ATR	Air Transport Rack
	Air Transport Radio
	Air Transport Rating.
ATS	Acceptance Test Specification
	Automatic Terminal System
	Applications Technology Satellite
	Administrative Terminal System
ATT	Acceptance Thermal Testing
ATU	Audio Terminal Unit
AUTODIN	Automatic Digital Network
AUTOLAND	Automatic Landing
AUX	Auxiliary
AV	Avionics
	Aero Environment, Inc.
AVE	Atmospheric Variability Experiment
AVVI	Altimeter Vertical Velocity Indicator
AVT	Acceptance Vibration Testing
AWCS	Agency-Wide Coding Structure
AWG	American Wire Gage
AWL	Automated Wire List
AWS	American Welding Society
AZ	Azimuth

B	Bit
B/C	Bench Check
B/L	Baseline
B/W	Black and White
BA	Bank Angle
BAC	Buffer Access Card
	Booster Assembly Contractor
BAI	Barometric Altitude Indicator
BARS	Baseline Accounting and Reporting System
BB	Breadboard
BBC	Before Business Clearance
BC	Battery Charger
BCCT	Break Control Command Transducers
BCE	Bus Control Element
BCP	Benchmark Control Point
BCRD	Basic Consolidated Requirements Document
BCU	Bus Control Unit
BDA	Bermuda (STDN)
BECD	Booster Engine Cutoff
BER	Bit Error Rate
BESS	Biomedical Experiment Scientific Satellite
BFCs	Backup Flight Control System
BITE	Built-In Test Equipment
BIU	Buffer Interface Unit
BLOW	Booster Lift-Off Weight
BMAP	Buffer Map
BME	Bench Maintenance Equipment
BMS	Background Measurement Satellite
BOD	Beneficial Occupancy Date
BOE	Break of Entry
BOF	Beginning of File
BOI	Break of Inspection
BOM	Bill of Material
	Beginning of Month
BOPACE	Boeing Plastic Analysis Capability for Engines
BOT	Beginning of Tape
B&P	Budgetary and Planning
BP	Boilerplate
BPD	Baseline Program Document
BPI	Bits Per Inch
BPS	Bits Per Second
BRAVO	Business Risk and Value of Operation in Space
BRRS	Banana River Repeater Station
B/SC	Break Skid Control
BSI	Basic Shipping Instructions
BSM	Booster Separation Motors
BSRM	Booster Solid Rocket Motor
BTC	Bus Tie Contractor
Btu	British Thermal Unit
BU	Backup
BUOU	Backup Optical Unit
BUR	Backup Rate
BW	Bridgewire

C	Candle
	Capacitance
	Centigrade
	Cycle
	Hundred
	Complete
C-C	Carbon-Cargon
C-To-C	Computer-To-Computer
C/D	Countdown
C/F	Center Frequency
C/O	Checkout
	Cutoff
C/S	Counts per Second
CA	Cone Angle
	Cost Account
	Corrective Action
CAB	Civil Aeronautics Board
CACON	Cargo Container
CAD	Computer Aided Design
CADE	Controller/Attitude-Direct Electronics
CADS	Command and Data Simulator
CADSI	Communications and Data Systems Integration
CADU	Control & Display Unit
CAL	Cornell Aeronautical Laboratory
CAM	Computer Aided Manufacturing
	Content Addressable Memory
CAN	Certification Analysis Network
CAP	Contractor Acquired Property
	Cost Account Package
CAR	Corrective Action Request
	Certification Approval Request
CARID	Customer Acceptance Review Item Disposition
CARR	Customer Acceptance Readiness Review
CAS	Command Augmentation System
CAU	Command Acquisition Unit
	Customer Acquisition Unit
CB	Circuit Breaker
CBIL	Common and Bulk Items List
CBR	California Bearing Ratio
CBX	C-Band Transponder
CCA	Contract Change Authorization
CCAFS	Cape Canaveral Air Force Station
CCATS	Command, Communication & Telemetry Subsystem
CCB	Configuration Control Board
CCBD	Configuration Control Board Directive

CCC	Controller Checkout Console
	Central Computer Complex
CCD	Change-Coupled Device
	Checkout Command Decoder
CCF	Converter Compressor Facility
CCL	Commonality Candidate List
CCM	Controlled Carrier Modulation
	Crew/Cargo Module
CCMS	Command Control & Monitoring System
	Checkout, Control & Monitor Subsystem
CCN	Contract Change Negotiation
	Contract Change Notice
CCOH	Corrosive Contaminants, Oxygen & Humidity
CCP	Configuration Control Panel
	Configuration Change Point
	Contract Change Proposal
CCRA	Cape Canaveral Reference Atmosphere
CCS	Central Control Section
	Command and Communication System
	Complex Control Set
CCTV	Closed Circuit Television
CCV	Chamber Coolant Valve
CCW	Counterclockwise
C&D	Control & Display
C&DS	Command and Data Simulator
CD	Candella (luminous intensity)
CDA	Command & Data Acquisition
CDBFR	Common Data Buffer
CDC	Countdown Clock
CDDT	Countdown Demonstration Test
CDF	Circuit Design Fabrication
	Confined Detonating Fuse
	Central Data Facility
CDF & TDS	Circuit Design, Fabrication & Test Data Systems
CDI	Course Deviation Indicator
CDMS	Command Data Management System
CDPIS	Command Data Processing & Instrumentation System
CDQR	Critical Design and Qualification Review
CDR	Critical Design Review
	Commander
CDRR	Contract Documentation Requirements Records
CDS	Central Data System (Subsystem)
CDSC	Communications Distributing & Switching Center
CDT	Countdown Time
	Central Daylight Time
	Command Descriptor Table
CE	Civil Engineering
	Change Evaluation
CEC	Control Encoder Coupler
CEI	Contract End Item
CEIAC	Coastal Engineering Information Analysis Center
CEQ	Council on Environmental Quality
CER	Cost Estimating Relationship



CFE	Contractor Furnished Equipment
CFM	Cubic Feet Per Minute
CFSTI	Clearinghouse For Scientific & Technical Information
CFY	Company Fiscal Year
CG	Center of Gravity
CGC	Command Guidance Computer
CH	Channel
CHR	Cooper-Harper Rating
CI	Configuration Inspection
CIB	Change Impact Board
	Change Implementation Board
CIC	Control and Information Center
CIF	Central Instrumentation Facility
CIL	Critical Items List
CIS	Central Integration Site
	Change Impact Summary
CIU	Computer Interface Unit
CL	Closed Loop
	Centerline
CLM	Care Logic Module
CLMC	Central Logistics Management Center
CLS	Contingency Landing Site
CM	Configuration Management
	Consumables Management
	Crew Module
CMA	Configuration Management Accounting
CMAO	Contract Management Assistance Officer
CMAT	Compatible Materials List
CMD	Command
CMG	Control Moment Gyro
CMM	Condition Monitored Maintenance
CMD	Configuration Management Office
CMRB	Contractor Material Review Board
CM&S	Communications Maintenance and Storage
CMTS	Computerized Maintenance Test System
CNWDI	Critical Nuclear Weapons Design Information
C of F	Cost of Facilities
CO	Change Order
	Contracting Officer
CO2	Carbon Dioxide
COAS	Coarse Optical Alignment Sight
	Crew Optical Alignment Sight
COB	Communications Office Building
COC	Close Open Close
COF	Construction of Facilities
COFI	Checkout & Fault Isolation (Onboard)
COFR	Certificate of Flight Readiness
COFW	Certificate of Flight Worthiness
C&M	Control and Monitoring
COMAS	Combined Orbital Maneuvering & Abort System
COMM	Communications
COMPEN	Compensator
COMPOOL	Common Data Pool

COMPR	Compressor
COMR&DSAT	Communication Research & Development Satellite
COMSEC	Communications Security
CONN	Connect
CONT	Control
CONUS	Continental United States
COR	Contracting Officer Representative
COS	Console Operating System
COSATI	Committee On Scientific & Technical Information
COSI	Closeout System Installation
CP	Circular Pitch
	Center of Pressure
	Console Processor
CPA	Critical Path Analysis
	Contingency Planning Aid
CPAF	Cost Plus Award Fee
CPC	Central Planning Center
	Computer Program Component
CPCR	Computer Program Change Request
CPD	Crew Procedures Division
CPDS	Computer Program Design (or Development) Specification
CPE	Chief Program Engineer
CPEI	Computer Program End Item
CPF	Cargo Processing Facility
	Cost Per Flight
CPFF	Cost Plus Fixed Fee
CPIF	Cost Plus Incentive Fee
CPM	Computer Program Module
	Critical Path Method
CPMP	Crew Procedures Management Plan
CPR	Critical Problem Report
CPS	Cycles Per Second
CPSE	Common Payload Support Equipment
CPT	Cargo Processing Technician
CPU	Central Processing Unit
CR	Change Request
CRAS	Cost Reduction Alternative Study
CRB	Change Review Board
CRC	Cost Reduction Curve
CRES	Corrosion Resistant Steel
CRG	Correspondence Review Group
CRIS	Calibration Recall & Information System
CRN	Contract Revision Number
CRPL	Cosmic Ray Physics Laboratory
CRR	Critical Requirements Review
	Computer Run Report
CRSI	Ceramic Reusable Surface Insulation
CRT	Cathode-Ray Tube
CRYO	Cryogenic
C/SCSC	Cost Schedule Control Systems Criteria
CS	Crew Station
	Change Status
CSA	Cyclic Strain Attenuator

CSC	Cosecant Computing Amplifier
	Conical Shaped Charge
CSCSAT	Commercial Synchronous Communication Satellite
CSDD	Control Systems Development Division
CSDL	Charles Stark Draper Laboratory (MIT)
CSE	Common Support Equipment
CSF	Cost Sensitivity Factor
CSI	Control Servo Input
CSM	Common Support Module
CSR	Crew Station Review
	Check Signal Return
CSRP	Computers & Software Review Panel
CSS	Care Segment Simulator
	Computer Subsystem
	Control Stick Steering
CST	Central Standard Time
	Crew Station Trainer
	Contract Supplemental Tooling
C&T	Communication and Tracking
CT	Crawler Transporter
CTA	Controlled Thrust Assembly
CTC	Chief Test Conductor
	Camera, Timing & Control
CTL	Control
	Canoga Test Laboratory
CTM	Crystalline Transitional Material
	Contract Technical Manager
CTN	Certification Test Network
CTP	Communications Timing Procedure
CTR	Contract Technical Representative
CTS	Communications & Tracking System
	Computer Test Set
CTU	Central Timing Unit
CUB	Commonality Usage Board
CUC	Computer Usage Control
CUE	Common Usage Equipment
CUDS	Cumulative Data Statistics
CUIL	Common Usage Item List
CUM	Cumulative
CUP	Commonality Usage Proposal
CV	Coefficient of Variation
CVAS	Configuration Verification Accounting System
CVT	Concept Verification Test
C&W	Caution and Warning
CW	Continuous Wave
	Clockwise
CWA	Clean Work Area
CWG	Constant Wear Garment
CY	Calendar Year

D	Delta
D/A	Digital-to-Analog
D/L	Downlink
DABS	Discrete Address Beacon System
DAC	Digital-to-Analytical Conversion
	Data Acquisition & Control
DACBU	Data Acquisition & Control Buffer Unit
DACS	Digital Acquisition & Control System
DADS	Dual Air Density Satellite
DAIS	Digital Avionics Information System
DAL	Data Accession List
	Data Aided Loop
DAP	Digital Auto Pilot
DAR	Data Aided Receiver
	Digital Autopilot Requirements
DARTS	Digital Automated Radar Tracking System
DAS	Data Analysis Station
DASA	Dual Aerospace Servo Amplifier
DAU	Data Acquisition Unit
DB	Decibels
	Dry Bulb
DBIU	Data Bus Interface Unit
DBRN	Data Bank Release Notice
DBUR	Data Bank Update Request
D&C	Displays and Controls
DC	Direct Current
DCA	Design Change Authorization
DCAA	Defense Contract Audit Agency
DCAR	Design Corrective Action Report
DCAS	Defense Contract Administration Services
DCC	Document Control Center
DCN	Document Change Notice
	Design Change Notice
	Drawing Change Notice
DCOP	Displays, Controls & Operation Procedures
DCP	Data Collection Platform
DCPEI	DEU Control Program End Item
DCR	Design Certification Review
	Document Change Record
	Design Concern Report
D&CS	Displays & Controls Subsystem
DCS	Design Criteria Specification
	Data Control System
	Digital Command System (Subsystem)
DCSP	Digital Control Signal Processor
DCU	Display & Control Unit
DCV	DC Volts
DD	Directives Documentation
DDA	Digital Differential Analyzer

DDAS	Digital Data Acquisition System
DD&CS	Dedicated Display & Control Subsystem
DDI	Discrete Digital Input
DDS	Documentation Distribution System
DDT&E	Design, Development, Test & Evaluation
DDTF	Dynamic Docking Test Facility
DDTS	Dynamic Docking Test System
DDU	Display Driver Unit
DE	Design Engineering
DECL	Direct Energy Conversion Laboratory (JSC)
DECOM	Decommutator
DEE	Digital Events Evaluator
DECR	Decrease
DECU	Data Exchange Control Unit
DEI	Design Engineering Identification
DEIS	Design Engineering Inspection Simulation
	Design and Evaluation Inspection Simulator
DEL	Delivery
DEM0D	Demodulate
DEMUX	Demultiplexer
DER	Drawing Error Report
DESAT	Desaturated
DESPOT	Design Performance Optimization
DET	Digital Event Timer
DEU	Display Electronics Unit
DEW	Distant Early Warning
DF	Development Flight
	Direction Finding
DFCS	Digital Flight Control Software
	Digital Flight Control System
DFI	Development Flight Instrumentation
DFRC	Dryden Flight Research Center
DG	Display Generator
DIDS	Defense Integrated Data System
DIM	Design Interface Meeting
DIPEC	Defense Industrial Plant Equipment Center
DIST	Distribution
DIU	Digital Interface Unit
DLAT	Destructive Lot Acceptance Testing
DLSC	Defense Logistics Services Center
DLTR	Data Link Transmission Repeater
DMA	Direct Memory Access
DMC	Direct Maintenance Cost
DMCF	Deservicing, Maintenance & Checkout Facility
DMS	Data Management System
	Docking Mechanism Subsystem
DMSS	Data Management System Simulator (CVT)
DNA	Does Not Apply
DNP	Dynamic Nuclear Polarization
DOD	Department of Defense
DOF	Direction of Flight
	Degrees of Freedom
DOMSAT	Domestic Communications Satellite

DOS	Disk Operating System
DOT	Department of Transportation
DOT/CIAP	Department of Transportation/Climatic Import Assessment Program
DP	Delayed Procurement Design Proof Double Pole Development Phase
DPI	Detail Program Interrelationships
DPR	Definition Phase Review
DP&S	Data Processing & Software
DPS	Data Processing System (Subsystem) Data Processing Software
DPT	Design Proof Test
DR	Discrepancy Report Dispatch Reliability
DRB	Design Review Board
DRD	Data Requirements Description
DRI	Data Rate Indicator
DRL	Data Requirements List
DRM	Drawing Requirements Manual Design Reference Mission
DRR	Design Requirements Review
DRS	Data Relay Station Digital Range Safety
DRSS	Discrepancy Report Squawk Sheet
DSA	Defense Supply Agency
DSN	Deep Space Network
DSPM	Designated Subsystems Project Manager
DSS	Deep Space Station Department Summary Schedule
DST	Dimensional Special Tooling
DT	Drop Tank
DTA	Development Test Article
DTCS	Digital Test Command System
DTCW	Data Transfer Command Word
DTMO	Design, Test & Mission Operations Development, Test & Mission Operations
DTMS	Digital Test Measurement System
DTRD	Development Test Requirements Document
DTs	Data Transmission System Data Transfer System
DU	Display Unit
DUPLX(R)	Duplex(er)
DVS	Design Verification Specification
DWG	Drawing

E	Exempt (From Traceability)
	Elevation Angle
E-E	End to End
E/C	Encoder Coupler
E/O-IMS	Engineering/Operations-Information Management System
EAC	Estimate At Completion
EAFB	Edwards Air Force Base
EAG	Expendable Agena
EAR	Engineering Analysis Report
EAS	Equivalent Air Speed
EAT	Environmental Acceptance Test
EB	Electronic Beam
EBW	Explosive Bridge Wire
EC	Element Contractor
ECB	Events Control Buffer
ECCB	Engineering Change Control Board
ECI	Earth Centered Inertial
ECLS	Environmental Control and Life Support
ECLSS	Environmental Control & Life Support Subsystem
ECO	Engine Cutoff
	Engine Combustion
ECP	Engineering Change Proposal
ECR	Engineering Change Request
ECS	Environmental Control System
	Engine Control System
ECU	Environmental Control Unit
ED	Edge Distance
	Engineering Directive
EDA	Electronic Display Assembly
EDB	Environmental Data Book
EDC	Engineering Design Change
EDCP	Engineering Design Change Proposal
EDDR	Electron Dipole-Dipole Reservoir
EDF	Engineering Data File
EDLN	Engineering Development Logic Network
EDP	Electronic Data Processing
EDP&C	Electrical Power Distribution & Control
EDR	Engineering Design Review
EDS	Emergency Detection System
EDT	Eastern Daylight Time
EED	Electro Explosive Device
EEE	Electronic, Electrical, Electromechanical
EFFGRO	Efficient Growth (Computer Program)
EETB	Electronic Electrical Termination Building
EGA	Evolved Gas Analysis
EGT	Exhaust Gas Temperature
EHF	Extremely High Frequency
EHOT	External Hydrogen/Oxygen Tank
EHP	Electrical Horsepower

EI	Electromagnetic Interference
	End Item
	Entry Interface
EIA	Electrical Industries Association
EIC	Experimental Intercom
EIDP	End Item Data Package
EIFA	Element Interface Functional Analysis
EIS	End Item Specification
EIU	Engine Interface Unit
EIVT	Electrical & Instrumentation Verification Tests
	Electronic Installation Verification Test
	Electrical Interface Verification Test
EKG	Electrocardiograph
EL	Elastic Limit
ELACS	Extended Life Attitude Control System
ELMS	Elastic Loop Mobility System
ELS	Earth Landing System (Subsystem)
ELSC	Earth Landing Sequence Controller
ELT	Emergency Locator Transmitter
EM	Engineering Model
	Exception Monitor
EMA	Electromagnetic Analysis
EMC	Electromagnetic Compatibility
EMF	Electromotive Force
EMG	Surface Electromyograms
EMI	Electromagnetic Interference
EMN	Engineering Management Network
EMP	Equipment Mounting Plate
EMR	Engine Mix Ratio
EMS	Engineering Master Schedule
	Entry Monitor Subsystem
EMU	Extravehicular Mobility Unit
ENC	Encode
ENDF	Evaluated Neutron Data File
ENG	Engine
	Engineering
ENVIR	Environmental
E0	Engineering Order
	Earth Orbit
EOC	Engine Order Capability
EOD	Explosive Ordnance Disposal
EOF	End Of File
EOHT	External Oxygen & Hydrogen Tanks
EOL	End Of Life
EOM	Engineering Operations Manual
	Equations Of Motions
EOP	Emergency Oxygen Pack
EOR	Earth Orbital Rendezvous
EOS	Emergency Oxygen System
	Earth Orbit Shuttle
	Earth Observation Satellite
EOT	End Of Tape
EPC	Error Protection Code
	External Power Contractor



EPDCS	Electrical Power Distribution & Control System
EPG	Electrical Power Generator
EPMS	Engineering Performance Management System
EPO	Element Project Office
EPRN	Emergency Program Release Notice
EPS	Electrical Power Subsystem
	Experimental Power Supply
EPT	Emergency Procedure Trainer
	Ethylene Propylene Terpolymer
EPTU	Events Per Time Unit
EQ	Equivalent
ER	Explanation Report
ERA	Electrical Replaceable Assembly
ERAP	Earth Resources Aircraft Program
ERB	Engineering Review Board
ERP	Effective Radiation Power
	Effected Radiative Power
	Eye Reference Point
ERRC	Expendability Recoverability Repair Capability
ERS	Engineering Release System
ERSI	Elastomeric Reusable Surface Insulation
ERTS	Earth Resources Technology Satellite
ESA	Explosive Safe Area
	European Space Agency
ESCA	Electron Spectroscopy for Chemical Analysis
ESE	Electrical Support Equipment
	Electronic Support Equipment
ESPS	Experiment Segment & Pallet Simulator
ESR	Engineering Support Request
ESRO	European Space Research Organization
ESS	Experiment Subsystem Simulator
ESSA	Environmental Sciences Services Administration
EST	Estimate
	Eastern Standard Time
ESTL	Electronic Systems Test Laboratory
ESU	Emergency Shutoff Value
ESV	Emergency Shutoff Valve
ET	External Tank
	Edge Thickness
	Event Timer
ETA	Estimated Time of Arrival
ETC	Estimate To Completion
ETLOW	External Tank Lift-Off Weight
ETR	Eastern Test Range
ETROD	Eastern Test Range Operations Directive
ETS	Electrical Test Set
ETSS	External Tank Separation Subsystem
EU	Electronic Unit
	Experimental Unit
EVA	Extravehicular Activity
	Earned Value Analysis
EVCON	Events Control Subsystem
EVF	Equipment Visibility File

EVM	Earth Viewing Module
EVS	Equipment Visibility System
EVSS	Extravehicular Space Suit
EWA	Estimated Warehouse Arrival
EWE	Emergency Window Escape
EWB	Engineering Work Request
EXP	Experiment

-F-

F	Farrad (SI Unit of Capacitance)
	Fahrenheit
F/E	Full Empty
F/F	Flip/Flop
F/O	Fuel/Oxidizer
FA	Final Assembly
	Failure Analysis
	Fully Automatic
FAA	Federal Aviation Administration
FAB	Fabricate
FAC	Facility
FACI	First Article Configuration Inspection
FACO	Final Assembly Checkout
	Factory Assembly and Checkout
FAF	First Aerodynamic Flight
FAIR	Fabrication, Assembly, & Inspection Record
FAL	First Approach & Landing Test
FAR	Final Acceptance Review
	Federal Aviation Regulation
	Failure Analysis Report
FAT	Flight Attitude Table
FAX	Facsimile Transmission
FBC	Fluidized-Bed Combustion
FBCS	Fixed Base Crew Station (SMS)
FBS	Firefighters Breathing System
FBV	Fuel Bleed Valve
	Field Base Visit
FC	Fit Check
	Flight Control
	Flight Computer
	Fuel Cell
FCA	Frequency Control Analysis
FCAP	Flight Control Applications Program
FCC	Flat Conductor Cable
FCCP	Firm Contract Cost Proposal
FCE	Flight Crew Equipment
	Flight Control Equipment

FCEI	Facility Contractor End Item
FCF	First Captive Flight
FCHL	Flight Control Hydraulics Laboratory
FCL	Fræon Coolant Loop
FCO	Functional Checkout
FCOS	Flight Computer Operating System
	Flight Control Operating System
FCP	Fuel Cell Power Plant
	Firm Cost Proposal
FCPS	Fuel Cell Power Subsystem
FCR	Final Configuration Review
FCRT	Flight Display CRT
FCS	Flight Control Subsystem
	Flight Crew System
FCSM	Flight Combustion Stability Monitor
FCT	Flight Crew Trainer
FD	Flight Director
	Function Designator
FDA	Fault Detection & Annunciation
FDAI	Flight Director Attitude Indicator
FDB	Fahrenheit Dry Bulb
FDF	Flight Data File
FDI	Fault Detection & Isolation
FDIIR	Fault Detection, Isolation, Identification & Recompensation
FDM	Frequency Data Multiplexer
	Frequency Division Multiplexing
FDS	Fluid Distribution System
FDSC	Flight Dynamics Simulation Complex
FDX	Full Duplex
F&E	Facility & Environment
FEA	Failure Effects Analysis
FEAT	Final Engineering Acceptance Test
FEC	Field Engineering Change
FED	Flight Events Demonstration
FEID	Flight Equipment Interface Device
	Functional Engineering Interface Device
FEMCPL	Facilities and Environmental Measurement Components Parts List
FEP	Front End Processor
	Floral Ethyl Propane
FF	Flip Flop
FFBD	Functional Flow Block Diagram
FFC	Final Flight Certification
FFD	Functional Flow Diagram
FFM	Free-Flying (Experiment) Module
FFP	Firmed Fixed Price
FFTO	Free Flying Teleoperator
FHF	First Horizontal Flight
FHP	Fuel High Pressure
FIAR	Failure Investigation Action Report
FIFO	First In-First Out (High Speed Data Buffers)
FIIG	Federal Item Identification Guide

FIS	Facility Interface Sheets
FIT	Fault Isolation Test
FKB	Flight Display Keyboard
FL	Flowline
	Feed Lines
FLC	Federal Library Committee
FLT	Flight
FM	Frequency Modulation
FMEA	Failure Modes & Effects Analysis
FMEC	Forward Master Events Controller
FMOF	First Manned Orbital Flight
FRM	Field Modification Request
FMX	FM Transmitter
FND	Facility Need Date
FO/FS	Fail-Operational/Fail-Safe
FOB	Freight On Board
	Flight Operations Building
FOD	Flight Operations Directorate (JSC)
FOF	First Orbital Flight
FOPG	Flight Operations Planning Group
FOTRAN	Formula Translation
FOSDIC	Film Optical Sensing Device for Input to Computers
FOV	Field Of Vision
	First Orbital Vehicle
FP	Fuel Pressure
	Freezing Point
	Functional Path
FPB	Fuel Preburner
FPBOV	Fuel Preburner & Oxidizer Valve
FPE	Functional Program Element
EPIF	Fixed Price Incentive Fee
FPL	Full Power Level
FPM	Feet Per Minute
FPR	Flight Performance Reserve
FPS	Feet Per Second
FQR	Flight Qualification Recorder
FR	Firing Room
FRC	Flight Research Center (now DFRC)
FRCS	Forward Reaction Control Subsystem
FRF	Flight Readiness Firing
FRR	Flight Readiness Review
FRRID	Flight Readiness Review Item Disposition
FRT	Flight Readiness Test
FS	Fail Safe
	Federal Specification
FSAA	Flight Simulator for Advanced Aircraft
FSC	Federal Stock Classification
FSCM	Federal Supply Code for Manufacturers
FSI	Final Systems Installation
FSIM	Function Simulator
FSK	Frequency Shift Keyed
FSLT	First Sea Level Test
FSN	Federal Stock Number

FSS	Flight Systems Simulator
FSSR	Functional Subsystem Software Requirements
FSTE	Factory Special Test Equipment
FT	Flight Test
FTA	Fatigue Test Article
FTC	Flight Test Conductor
FTE	Factory Test Equipment
	Forced Test End
FTIS	Flight Test Instrumentation System
FTOH	Flight Team Operations Handbook
FTP	Functional Test Progress
FTRD	Flight Test Requirements Document
FUNCT	Functional
FUO	Follow-up Output
FV	Front View
FVF	First Vertical Flight
FWB	Fahrenheit Wet Bulb
FWD	Forward
FWWM	Food, Water & Waste Management
FWMS	Food, Water & Waste Management Subsystem
FY	Fiscal Year

-6-

G	Gravity
G-A	Ground-to-Air
G-G	Ground-to-Ground
G&A	General & Administrative
GA	Gyro Assembly
GAC	Grumman Aerospace Corporation
GAIN	Graphic Aids for Investigating Networks
GAM	Gamma
GAO	General Accounting Office
GAP	GOAL Automatic Procedure
GAPL	Group Assembly Parts List
GATT	Gate Assisted Turn Off Thyristor
GBI	Grand Bahama Island
GBL	Government Bill of Lading
G&C	Guidance & Control
GCA	Ground Controlled Approach
GCDC	Ground Checkout Display & Control System
GCI	Ground Controlled Interception
GCS	Guidance Cutoff Signal
GCTS	Ground Communication Tracking System
GCU	Gyro Coupling Unit
	Generator Control Unit

GDBS	Generalized Data Base System
GDS	Goldstone, California (STDN)
GE	General Electric
GEDAC	General Electric Detection & Automatic Correction
GEOPAUSE	Geodetic Satellite in Polar Geosynchronous Orbit
GEOSEPS	Geosynchronous Solar Electric Propulsion Stage
GERT	Graphical Evaluation & Review Techniques
GET	Ground Elapsed Time
GETS	Ground Equipment Test Sets
GF&P	Gases, Fluids & Propellants
GFAE	Government Furnished Aircraft Equipment
GFD	Government Furnished Data
GFE	Government Furnished Equipment
GFP	Government Furnished Property
GFRP	Graphite Fiber Reinforced Plastic
GFY	Government Fiscal Year
GH2	Gaseous Hydrogen
GHA	Greenwich Hour-Angle
	General Housekeeping Area
GHe	Gaseous Helium
GIM	Generalized Information Management
GITS	Ground Interface Technical Group
GIWS	Ground Interface Working Group
GLAADS	Gun Low Altitude Air Defense System
GLC	Generator Line Contractor
GLOW	Ground Lift-Off Weight
GLY	Glycol
GMAP	General Electric Macro Assembly Language
GMIL	Spaceflight Tracking and Data Network Station (KSC)
GMT	Greenwich Mean Time
G&N	Guidance & Navigation
GN2	Gaseous Nitrogen
GN&C	Guidance, Navigation & Control
GNC	Guidance and Navigation Control
GNCS	Guidance, Navigation & Control Integration Simulator
GND	Ground
GNP	Gross National Product
GO	General Order
GO2	Gaseous Oxygen
GOAL	Ground Operations Aerospace Language
GOCA	Ground Operations Control Area
GOPG	Ground Operations Planning Group
GORP	Ground Operations Requirements Plan
GOSS	Ground Operations Support System
GOX	Gaseous Oxygen (GO2)
GP	General Purpose
	General Publication (KSC)
GPAS	General Purpose Airborne Simulator
GPC	General Purpose Computer
	Gel Permeation Chromatograph
GPCB	GOAL Program Control Block
GPME	General Purpose Mission Equipment
GPRN	GOAL Test Procedure Release Notice

GPSS	General Purpose Simulation System (IBM)
GPTE	General Purpose Test Equipment
GPUR	GOAL Test Procedure Update Request
GRID	Graphic Retrieval & Information Display
GSA	General Services Administration
GSC	GOAL System Configuration
GSCU	Ground Service Cooling Unit
GSDL	Ground Software Development Laboratory
GSE	Ground Support Equipment
GSEL	Ground Support Equipment List
GSFC	Goddard Space Flight Center (Greenbelt, MD)
GSVP	Ground Support Verification Plan
GT	Ground Test
GT&A	Ground Test and Acceptance
GTA	Ground Test Article
GTI	Grand Turk Island
GUL	GSE Utilization List
GVT	Ground Vibration Test
GVT A	Ground Vibration Test Article
GW	Gross Weight
GWA	General Work Area
GWM	Guam (STDN)
GWT	Ground Winds Tower
GYM	Guaymas, Mexico (Remote Site)
GYROA	Gyro A

-H-

H	Henry (SI Unit)
H2	Gaseous Hydrogen
H/E	Heat Exchanger
H/L	Hardline
H/S	Heat Shield
H/T	Heat Treat
HA	Hazard Analysis
HAA	High Altitude Abort
HAFB	Holloman Air Force Base
HAL	High-Order Assembly Language
HAS	Holddown Alignment Support
HAST	High Altitude Supersonic Target
HAW	Hawaii (STDN)
HB	High Bay
HBW	Hot Bridge Wire
HC	Head Count
	Hybrid Computer
HCMM	Heat Capacity Mapping Mission

HDQTRS	Headquarters
HDWE	Hardware
He	Helium
HEM	Hatchhike Experiment Module
HEO	High Energy Orbit
HEPA	High Efficiency Particle Accumulator
HER	HIM Equipment Rack
HERSCP	Hazardous Exposure Reduction & Safety Criteria Plan
HESS	High Energy Squib Simulator
HF	High Frequency
	Horizontal Flight
HFC	Hydraulic Flight Control
	Heat Flow & Convection
HFCT	Hydraulic Flight Control Test
HFCV	Helium Flow Control Valve
HFT	Horizontal Flight Test
HFTF	Horizontal Flight Test Facility
HFTS	Horizontal Flight Test Simulator
HFX	High Frequency Transceiver
HGA	High Gain Antenna
HGDS	Hazardous Gas Detection System
HGM	Hot-Gas Manifold
HGR&SPTFAC	Hangar and Support Facility
HGVT	Horizontal Ground Vibration Test
HI	Honeywell, Inc.
HIM	Hardware Interface Module
HIPO	Hierarchical Input-Process Output
HL	Hinge Line
	Keel Line
HMC	Hybrid Microcircuit
HPF	Hypergol Maintenance Facility
	Horizontal Mating Facility
HMP	Hypergol Maintenance Facilities
HMX	Cycloteramethylenetrinitraimine
HNS	Hexanitrostilbene
HO	Hydrogen-Oxygen
HOL	High-Order Language
HP	High Pressure
HPFTP	High-Pressure Fuel Turbopump
HPGS	High Pressure Gas System
HPI	High Performance Insulation
HPOP	High Pressure Oxidizer Pump
HPOTP	High-Pressure Oxidizer Turbopump
HPS	Hydraulics Power System
HPU	Hydraulic Power Unit
HQ	Headquarters
HR	Hour
	Hydrogen Relief
HRIR	High Resolution Infrared Radiometer
HRL	Horizontal Reference Line
HRPS	Hazard Reduction Precedence Sequence
HRS	Hours
HRSI	High Temperature Reusable Surface Insulation



HRT	High Resolution Tracker
HS	High Speed
HSCU	Hydraulic Supply and Checkout Unit
HSF	Hypergol Servicing Facility
HSG	High Sustained G2 Acceleration
HSI	Horizontal Situation Indicator
HSL	Hardware Simulation Laboratory
HT	Heat Transfer
HTLL	High Test Level Language
HTPB	Hydroxyl Terminated Polybutadiene
HTS	Heat Transport System
HUL	Hardware Utilization List
HV	High Voltage
HVAC	Heating, Ventilating & Air Conditioning
HVSF	Honeywell Verification Simulation Facility
HVSL	Holidays, Vacation & Sick Leave
HW	Hotwire
	Hardware
HYD	Hydraulics
	Hydraulic Subsystem
HYGL	Hypergolic
HYPACE	Hybrid Programmable Attitude Control Electronics
HZ	Hertz (cycles per second)

-I-

I	Iodine
I/F	Interface
I/FU	Interface Unit
I/O	Input/Output
I/T	Intertank
IA	Input Axis
	Implementation Agency
	Issuing Agency
	Inverter Assembly
IAA	International Aerospace Abstracts
IAD	Interface Agreement Document
	Interface Analysis Document
IAS	Indicated Airspeed
IAV	Inventory Adjustment Voucher
IB	Inert Building
	Instruction Book
IBM	International Business Machines
IBF	Internally Blown Flap
I&C	Installation & Checkout

IC	Intercommunications
	Interim Change
	Information Center
	Integrated Circuit
	Incremental Cost
	Intercomputer Channel
ICA	Item Change Analysis
ICAR	Investigation & Corrective Action Report
ICB	Interim Change Bulletin
	Interrupt Control Block
ICC	Inter-Computer Channel
	Interface Control Chart
	Interstate Commerce Commission
ICCP	Interface Coordination & Control Procedure
ICD	Interface Control Document
ICDU	Inertial Coupling Data Unit
ICE	Instrument/Communication Equipment
	Instrument Checkout Equipment
ICMS	Indirect Cost Management System
ICO	Integrated Checkout
ICR	Instruction Change Request
ICS	Interpretive Computer Simulator
ICT	Interface Control Tooling
ICWG	Interface Control Working Group
ID	Inside Diameter
	Identification
	Interface Document
IDO	Interdivisional Operations
IDR	Intermediate Design Review
IDRD	Information Definition Requirements Document
IDS	Item Description Sheet
	Interface Data Sheet
IDTA	Interdivisional Technical Agreement
IDU	Interface Demonstration Unit
IDWA	Interdivisional Work Authorization
IEA	Integrated Electronics Assembly
IF	Intermediate Frequency
IFA	Interface Functional Analysis
IFB	Invitation For Bid
IFN	Inflight Maintenance
IFO	Information Systems Office
IFR	Instrument Flight Rules
IFTV	Interim Hypersonics Test Vehicle
IG	Internal Guidance
IGA	Inner Gimble Angle
IGDS	Iodine Generating & Dispensing System
IGM	Interactive Guidance Mode
IHTV	Interim Hypersonics Test Vehicle
ILP	Integrated Logistics Panel
ILS	Instrument Landing System
	Integrated Logistics Support
IMPL	Implement
IML	Inside Mold Line

IMS	Inventory Management System
IMU	Inertial Measurement Unit
INC	Installation Notice Card
INCL	Include
INCR	Increment
IND	Indicator
INIT	Initial
	Initiate
INS	Inertial Navigation System
INSTL	Installation
INSTL & C/O	Installation & Checkout
INSTR	Instrument
INSTRUM	Instrumentation Subsystem
INT	Integrated Testing
INTASAT	Instituto Nacional De Technica Aeroespacial Satellite
INTV	Interim Hypersonics Test Vehicle
INV MGT	Inventory Management
IO	Industrial Operations (MSFC)
IOA	Input Output Adapter
IOB	Input/Output Buffer
IOC	Initial Operational Capability
	Input/Output Controller
	Indirect Operating Costs
IOP	Input-Output Processor
IOPL	Integrated Open Problem List
IOS	Instructor Operator Station
	Indian Ocean Ship (Tracking)
	Input/Output Supervision
IP	Identification of Position
	Intermediate Pressure
IPACS	Integrated Power & Attitude Control System
IPAD	Integrated Program for Aerospace Vehicle Design
IPB	Illustrated Parts Breakdown
	Illuminated Push Button
IPC	Intermittent Positive Control
IPCL	Instrumentation Program & Component List
IPE	Industrial Plant Equipment
IPL	Indentured Parts List
	Initial Program Load
IPR	Interim Problem Report
IPS	Instrumentation Power Subsystem
	Inverter Power Supply
	Inches Per Second
	International Pipe Standard
IPT	International Pipe Thread
I&R	Interchangeability & Replaceability
I&RS	Instrumentation & Range Safety
IR	Infrared
	Inside Radius
IRAN	Inspection & Repairs As Necessary
IRD	Information Requirements Document
IRG	Inertial Rate Gyro

IRIG	Inertial Rate Integrating Gyro
	Inter-Range Instrumentation Group
IRL	Interface Requirement List
IRME	Initiator Resistance Measuring Equipment
IRN	Interface Revision Notice
IRR	Integral Rocket Ramjet
IRTCMS	Integrated Real Time Contamination Monitor System
IRU	Inertial Reference Unit
IRV	Isotope Reentry Vehicle
I&S	Interchangeability and Substitutability
IS	Installation Support
ISI	Initial Systems Installation
ISIL	Interim Support Items List
ISP	Initial Specific Impulse
ISPG	Institutional Support Planning Group
ISS	Instruction Summary Sheet
IST	Integrated Systems Test
ISTB	Integrated Subsystem Test Bed
ITE	Instrumentation Test Equipment
ITS	Instrumentation Telemetry Station
ITI	Inspection & Test Instruction
IU	Instrumentation Unit
IUCS	Instrumentation Unit Updata Command System
IUS	Interim Upper Stage
IVA	Intravehicular Activity
IVAR	Internal Variable
IVE	Interface Verification Equipment
IWBS	Indirect Work Breakdown Structure

-J-

J	Joule (SI Unit)
J/M	Jettison Motor
JAN	Joint Army-Navy
JAS	Journal of Aerospace Science
JB	Junction Box
JCL	Job Control Language
JCT	Junction
JIR	Job Improvement Request
JO	Job Order
JOC	Joint Operations Center
JOD	Joint Occupancy Date
JOP	Joint Operating Procedure
JOR	Job Order Request
JP	Jet Propellant
	Jet Propulsion
JPIC	Joint Program Integration Committee

JPL	Jet Propulsion Laboratory
JPP	Joint Program Plan
JSC	Johnson Space Center
JSLWG	Joint Spacelab Working Group
JST	Joint Systems Test
JURG	Joint Users Requirements Group

-K-

K	Kilo
	Kelvin Scale
	One Thousand
K-LBS	Thousand Pounds
K-SM	KSC Shuttle Management Document
K-STSM	KSC STS Management Document
K/S	Kick Stage
KAPL	Kennedy Approved Parts List
KBPS	Kilobits Per Second
KCAS	Knots Calibrated Airspeed
KCS	Key Configuration Studies
KDN	Kinetically Designed Nozzle
KHB	Kennedy Handbook
KHZ	Kilohertz
KIAS	Knots Indicated Airspeed
KMI	Kennedy Management Instructions
KN	Kennedy Notice
KNO	Kano, Nigeria (Remote Site)
KOI	Kennedy Operation Instruction
KOPS	Thousand of Operations Per Second
KPD	Kennedy Program Directive
KPRD	Kennedy Program Requirements Document
KPS	Kilometers Per Second
KSC	Kennedy Space Center
KVA	Kilovoltampere
KW	Kilowatt
KYBD	Keyboard

L	Left
	Launch
	Lumen
	Level
	Length
L/D	Lift-to-Drag Ratio
	Length to Diameter
L/O	Lift-Off
LA	Launch Abort
	Lanthanum
	Launch Area
	Launch Azimuth
	Lightning Arrestor
LACB	Landing Aids Control Building
LAD	Los Angeles Division (Rockwell)
LAGS	Launch Abort Guide Simulation
LARC	Langley Research Center (Hampton, VA)
LARS	Laminar Angular Rate Sensor
LARSYSAA	Laboratory for Application of Remote Sensing System for Aircraft Analysis
LASCOT	Large Screen Color Television System
LAT	Latitude
	Lateral
	Lot Acceptance Test
LB	Low Bay
	Load Bank
	Pound
LBDT	Low Bay Dolly Tug
L&C	Laboratory and Checkout
LC	Launch Complex
LCA	Launch Control Amplifier
LCC	Launch Control Center
	Life Cycle Cost
LCCD	Launch Commit Criteria Document
LCD	Launch Countdown
LCG	Liquid Cooled Garment
LCHTF	Low Cycle High Temperature Fatigue
LCR	Low Cross Range
LCU	Line Coupling Unit
	Length to Diameter
L&D	Landing & Deceleration
LDB	Launch Data Bus
LDEC	Lunar Docking Events Controller
LDEF	Long Duration Exposure Facility
LDS	Landing, Deservicing & Safing
	Landing/Deceleration Subsystem

LE	Launch Escape
	Leading Edge
	Loads
LEA	Logistics Engineering Analysis
LED	Light Emitting Diode
LERC	Lewis Research Center (Cleveland, OH)
LES	Launch Escape Subsystem
LESS	Leading Edge Structure Subsystem
LETF	Launch Equipment Test Facility
LF	Launch Facility
	Low Frequency
	Load Factor
LGA	Low Gain Antenna
LH	Left Hand
LH2	Liquid Hydrogen
LHA	Local Hour-Angle
LIDAR	Laser-Radar
LIM	Limit
LIMS	Logistics Inventory Management System
LINJET	Liquid Injection Electric Thruster
LIOH	Lithium Hydroxide
L&L	Launch & Landing
LL	Long Lead
	Low Level
LLCF	Launch & Landing Computational Facilities
LLP	Launch & Landing Project
LMF	Lower Mid Fuselage
LMK	Landmark
LMSC	Lockheed Missiles & Space Corporation
LN2	Liquid Nitrogen
LNDG	Landing
LNG	Liquified Natural Gas
LO	Launch Operations
LO2	Liquid Oxygen
LOA	Landing Operations Area
LOAPS	List Of Applicable Publications
LOB	Line Of Balance
LOC	Launch Operations Complex
LOE	Level Of Effort
LORA	Level Of Repair Analysis
LORAN	Long Range Navigation
LOS	Line Of Sight
	Loss Of Signal
LOV	Limit Of Visibility
	Loss Of Visibility
LOX	Liquid Oxygen
LP	Low Pressure
	Launch Pad
LPD	Launch Procedure Document
LPFTP	Low-Pressure Fuel Turbopump
LPG	Liquid Propellant Gun
LPLWS	Launch Pad Lightning Warning System
LPM	Lines Per Minute

LPOP	Low-Pressure Oxidizer Pump
LPOTP	Low-Pressure Oxidizer Turbopump
LPR	Line Printer
LPS	Launch Processing System
	Liters Per Second
LPW	Lumens Per Watt
LRSI	Low Temperature Reusable Surface Insulation
LRU	Line Replaceable Unit
LRV	Launch Readiness Verification
L&S	Logistics & Support
LS	Limit Switch
LSB	Lower Side Band
	Least Significant Bit
LSC	Linear Shaped Charge
LSE	Launch Support Equipment
	Life Support Equipment
LSD	Landing Ship Dock
LSM	Life Science Module
LSR	Land Sea Rescue
	Launch Site Recovery
LSS	Life Support Subsystem
LSSL	Life Sciences Space Laboratory
LSSM	Launch Site Support Manager
LS/ST	Light Shield/Star Tracker
LST	Launch Support Team
	Local Standard Time
	Liquid Storage Tank
	Large Stellar Telescope
	Large Space Telescope
L&T	Laboratories & Test
LUT	Launcher-Umbilical Tower
LV	Launch Vehicle
	Lift Vector
	Low Voltage
LVDC	Launch Vehicle Digital Computer
LVDT	Linear Voltage Differential Transformer
LVLH	Local Vertical/Local Horizontal
LWR	Lower
LWS	Lightning Warning System



M	Meter
	Mercury
	Mass
	Mandatory
	Million
	Mega
M	Maintainability
M-	Time in Days Before Move Operations
M-KG	Meter-Kilogram
M-M-L-S	Model-Modes-Loads-Stresses
M/S	Measurement Stimuli
M/SCI	Mission/Safety Critical Item
M/U	Mockup
MA	Master
	Maintenance Ability
	Milliamperes
	Material Authorization
	Missed Approach
	Mike Amplifier
Ma	Maintenance (STS)
MAA	Mathematical Association of America
MAB	Missile Assembly Building
	Mechanical Automation Breadboard
	Materials Advisory Board
MAC	Mean Aerodynamic Chord
	Multi-Access Computer
	Maintenance Advisory Committee
	Military Airlift Command
MACH	Machine
MACO	Major Assembly Checkout
MACRO	Merge & Correlate Recorded Output (Program)
MAD	Maintenance Analysis Data
	Madrid, Spain (STDN)
MAF	Mixed Amine Fuel
	Manpower Authorization File
	Michoud Assembly Facility
MAG	Magnetic
	Magnitude
MAI	Machine-Aided Indexing
MAIDS	Management Automated Information Display System
	Multipurpose Automatic Inspection & Diagnostic System
MAIR	Manufacturing And Inspection Record
MAL	Malfunction
	Material Allowance List
MALL	Malleable
MAN	Manual
	Microwave Aerospace Navigation
MAP	Missed Approach Point
	Message Acceptance Pulse
	Maintenance Analysis Program

MAPOLE	Magnetic Dipole Spark Transmitter
MATCO	Material Control
MATL	Material
MAU	Million Accounting Units
MAX	Maximum
MAXCO	Maximum Dynamic Pressure
MBCS	Motion-Base Crew Station (SMS)
MBFP	Manufacturing, Build and Flow Plan
MBPS	Megabits Per Second
MBO	Management By Objective
MBS	Megabits Per Second
MBV	Main Base Visit
M&C	Maintenance & Checkout
MCBF	Mean Cycle Between Failures
MC&C	Measurement, Command and Control
MCC	Main Combustion Chamber
	Mission Control Center
MCC-DOD	Mission Control Center - DOD
MCC-H	Mission Control Center - Houston
MCC-K	Mission Control Center - Kennedy
MCC-NASA	Mission Control Center - NASA
MCCC	Mission Control and Computing Center
MCCS	Mission Control Center Simulation (System)
MCDS	Multifunction Cathode Ray Tube Display System
MCDU	Multifunction CRT Display Unit
MCF	Maintenance & Checkout Facility
MCIU	Manipulator Controller Interface Unit
MCL	Master Configuration List
MCN	Master Change Notice
MCO	Mission Control Operations
MCOP	Mission Control Operations Panel
MCP	Master Change Proposal
	Master Computer Program
	Measurements Control Procedure
	Mission Control Programmer
	Materials Control Plan
MCR	Master Change Record
MCS	Maintenance & Checkout Station
	Measurements Calibration System
MCW	Modulated Continuous Wave
MD	Mission Director
	Microdot
	Master Dimension
	Malfunction Detection
MDA	Maintainability Design Approach
MDAC	McDonnell Douglas Aircraft Corporation
MDAR	Malfunction Detection Analysis & Recording
MDAS	Meteorological Data Acquisition System
	Mission Data Acquisition System
MDB	Mission Data Book
MDC	Main Display Console
	Mission Director Center

MDCS	Maintenance Data Collection System
	Material Data Collection System
	Master Digital Command System
MDD	Mate/Demate Device
MDE	Modular Display Electronics
	Mission Dependent Equipment
	Mission Dependent Experiment
MDF	Mating/Demating Facility
	Mild Detonating Fuse
MDL	Master Data Library
MDM	Multiplexer/Demultiplexer
MDR	Maintenance Demand Rate
	Missing Data Report
	Major Design Review
	Minor Discrepancy Repair
	Mission Data Reduction
MDRD	Mission Data Requirements Document
MDS	Management Data System
	Master Development Schedule
	Malfunction Detection System
	Minimum Discernible System
MDT	Mountain Daylight Time
	Measurement Descriptor Table
	Mean Down Time
	Mean Detonating Time
ME	Main Engine
	Management Engineering
	Miscellaneous Equipment
MEA	Maintenance Engineering Analysis
	Main Electronics Assembly
MEARS	Maintenance Engineering Analysis Records
MEBO	Main Engine Burnout
MEC	Main Engine Controller
	Master Event Controller
MECA	Main Engine Controller Assembly
MECF	Main Engine Computational Facilities
MECH	Mechanical
MECO	Main Engine Cutoff
MECR	Maintenance Engineering Change Request
MED	Medium
	Medical
MEDICS	Medical Information Computer System
MEE	Mission Essential Equipment
MEG	Megohm
MEI	Master Inspection Item
MEL	Minimum Equipment List
MELI	Master Equipment List Index
MEOP	Maximum Expected Operating Pressure
MEP	Mean Effective Pressure
	Management Engineering Program
MER	Meridian
MERL	Materials Engineering Research Laboratory
MERSAT	Meteorology and Earth Observation Satellite

MES	Main Engine Start
MET	Mission Elapsed Time
	Meteorological
MF	Medium Frequency
	Mate and Ferry
MFA	Manned Flight Awareness
MFBP	Manufacturing Flow & Building Plan
MFC	Multiple Flight Computer
	Multiple Flight Controller
MFD	Malfunction Detection
	Master File Directory
MFG	Manufacturing
	Major Functional Group
MFR	Maximum Flight Rate
	Multifunctional Receiver
MFT	Mean Flight Time
MFV	Main Fuel Valve
MG	Magnesium
	Mobile Generator
MGA	Middle Gimbal Angle
MGE	Maintenance Ground Equipment
MGMT	Management
MGSE	Mechanical Ground Support Equipment
MGT	Major Ground Test
MGVT	Mated Ground Vibration Test
MHD	Multi-Head Disc
MHE	Material Handling Equipment
MHF	Medium High Frequency
MHZ	Megahertz (Megacycles per second)
MI	Mile
MIA	Multiplex Interface Adapter
MIC	Management Information Center
MICIS	Material Inventory Control & Inventory System
MICOM	Missile Command (Army)
MICS	Management Information and Control System
MIL	Military
MILA	Merritt Island Launch Area
MIMOSA	Mission Modes and Space Analysis
MIMS	Medical Information Management System
MIN	Minimum
	Minute
MIO	Management Integration Office
MIP	Mandatory Inspection Point
	Modification Instruction Package
MIPS	Merritt Island Press Site
MIR	Malfunction Investigation Report
MIS	Management Information System
	Mission Information Subsystem
MISC	Miscellaneous
MISS	Mission
MIT	Massachusetts Institute of Technology (CSDL)
MITTS	Mobile Igor Tracking Telescope System
MIUS	Modular Integrated Utility Systems
MJ	Mechanical Joint

ML	Mobile Launcher
	Mold Line
MLC	Mobile Launcher Computer
MLG	Main Landing Gear
MLGS	Microwave Landing Guidance System
MLI	Multilayer Insulation
MLP	Mobile Launcher Platform
ML PED	Mobile Launcher Pedestal
MLS	Microwave Landing System
M&M	Materials & Maintenance
MM	Millimeter
	Mass Memory
	Man-Month
	Main Module
MMC	Mission Management Center
MMDF	Mission Model Data File
MMH	Monomethyl Hydrazine
	Maintenance Man-Hour
MML	Master Measurement List
MMLS	Model-Modes-Loads-Stresses
MMOS	Multimode Optical Sensor
MMSE	Multituse Mission Support Equipment
MMU	Manned Maneuvering Unit
MO	Manufacturing Order
	Month
	Major Objective
	Molybdenum
MOA	Make On Arrival
	Memorandum Of Agreement
MOCF	Mission Operations Computational Facilities
MOCR	Mission Operations Control Room
MOCs	Multichannel Ocean Color Sensor
MOD	Modification
	Modulator
	Module
MODART	Methods of Defeating Advanced Radar Threats
MODEM	Modulator-Demodulator
MOF	Manned Orbital Flight
MORD	Mission Operations Requirements Document
MORT	Management Oversight and Risk Tree
MOS	Metal Oxide Semiconductor
	Metal Oxide on a Substrate
MOSPO	Mobile Satellite Photometric Observatory
MOT	Motor
MOU	Memorandum Of Understanding
MOV	Main Oxidizer Valve
MP	Medium Pressure
	Management Package
M&P	Material & Processing
MPB	Maintenance Parts Breakdown
MPG	Multipoint Grounding
MPHE	Material & Personnel Handling Equipment

MPL	Minimum Power Level
	Maintenance Parts List
MPM	Manipulator Positioning Mechanism
MPP	Material Processing Procedure
	Merit Promotion Plan
MPR	Maintainability Problem Report
MPS	Main Propulsion Subsystem
	Master Program Schedule
MPSR	Mission Profile Storage & Retrieval
MPT	Main Propulsion Test
MPTA	Main Propulsion Test Article
MPTF	Main Propulsion Test Facility
M&R	Maintenance & Refurbishment
	Maintenance & Repair
MR	Mixture Ratio
MRA	Mechanical Readiness Assessment
MRB	Material Review Board
MRC	Measurement Requirements Committee
MRD	Mission Requirements Document
	Material Review Disposition
MRIR	Medium Resolution Infrared Radiometer
MRL	Material Requirements List
MS	Millisecond
	Mass Spectrometry
	Military Standard (Parts Designation)
	Master Switch
	Machine Screw
	Machine Steel
	Milestone
MSA	Material Service Area
	Minimum Surface Area
MSB	Most Significant Bit
MSBLS	Microwave Scanning Beam Landing Station
MSC	Master Sequence Controller
	Materials Service Center
MSDS	Multispectral Scanner and Data System
MSE	Maintenance Support Equipment
	Medical Support Equipment
MSF	Manned Space Flight
MSFC	Marshall Space Flight Center
MSG	Message
MSI	Maintenance Significant Items
MSL	Mean Sea Level
	Mechanical Systems Laboratory
MS/MS	Material Science and Manufacturing in Space
MSM	Manned Support Module
MSO	Model for Spares Optimization
MSOCC	Multisatellite Operations Control Center
MSS	Manufacturers Standardization Society
	Mission Specialist Station
	Mobile Service Structure
	Multispectral Scanner System

MST	Mountain Standard Time Measurement Status Table
MSU	Mass Storage Unit Measuring Stimuli Units
MSW	Microswitch
MT	Magnetic Tape Mount Mountain Time Maximum Torque Master Timer Mechanical Technician Master Tool
MTA	Major Test Article Mass Thermal Analysis
MTB	Materials Testing Branch
MTBF	Mean Time Between Failures
MTBM	Mean Time Between Maintenance
MTBMA	Mean Time Between Maintenance Action
MTC	Master Thrust Control
MTCA	Monitor & Test Control Area
MTCU	Magnetic Tape Control Unit
MTD	Mounted
MTDSK	Magnetic Tape Disk
MTE	Multi-System Test Equipment
MTF	Mississippi Test Facility (Now NSTL)
MTFO	Modular Training Field Option
MTG	Mounting
MTL	Material
MTM	Methods Time Measurement
MTO	Mission, Task, Objective Modification Task Outline
MTP	Master Test Plan Mission Test Plan
MTR	Mean Time to Repair
MTS	Magnetic Tape Station (system)
MTTA	Mean Time to Accomplish
MTTF	Mean Time to Failure
MTTFF	Mean Time to First Failure
MTTR	Mean Time to Repair
MTU	Magnetic Tape Unit Master Timing Unit Mobile Training Unit
MU	Mobile Unit Multiple Unit Master Unit
MUA	Maximum Usable Altitude
MUF	Maximum Usable Frequency
MULT	Multiple
MUMS	Multiple Use Marc System
MUX	Multiplexer
MV	Manufacturing Verification
MVA	Millivolt Megavolt Ampere

MVAS	Multipurpose Ventricular Actuating System
MVC	Master Volume Control
	Manual Volume Control
MVGVT	Mated Vertical Ground Vibration Test
MVM	Mariner Venus/Mercury
MVP	Master Verification Plan
MW	Milliwatt
	Microwave
MWB	Master Work Book
MWP	Maximum Working Pressure
MWR	Mean Width Ratio
MWV	Maximum Working Voltage
MX	Multiplex
MY	Man Years

-N-

N2	Nitrogen
N2H4	Hydrazine
N2O4	Nitrogen Tetroxide
N/A	Nest Assembly
N/B	Narrow Band
N/C	Normally Closed
N/O	Normally Open
N/P	Not Provided
NA	Not Applicable
NAAL	North American Aerodynamic Laboratory (Wind Tunnel)
NAC	Nacelle
NAEC	Naval Air Engineering Center
NAM	National Association of Manufacturers
NAP	Navigation Analysis Program
NAR	Numerical Analysis Research
NARS	National Archives & Record Service
NAS	National Aircraft Standards
	Naval Air Station
	National Academy of Sciences
NASA	National Aeronautics and Space Administration
NASCOM	NASA Communications Network
NASTRAN	NASA Structural Analysis
NATL	National
NATF	Naval Air Test Facility
NAVID	Navigation Aid
NAVSAT	Navigation Satellite
NB	No Bias (Relay)
	Navigation Base
	Nitrogen Base
	Niobium



NBS	National Bureau of Standards
NC	Numerical Control
	National Coarse
	No Change
	No Comment
NCC	NASA Class Code
NCGS	Nuclear Criteria Group Secretary
ND	NASA Document
	Neodymium
NDE	Non-Destructive Evaluation
NDI	Non-Destructive Inspection
NDT	Non-Destructive Testing
NEC	National Electrical Code
NEG	Negative
NET	Network
NFPA	National Fire Prevention Association
N&G	Navigation & Guidance (G&N is preferred)
NG	Narrow Gage
NH3	Ammonia
NH4	Hydrazine
NHA	Next Higher Assembly
NHB	NASA Handbook
NI	Nickel
NI-SIL	Nickel-Silver
NIB	Non-Interference Basis
NIC	Not In Contract
NIP	Nipple
NJP	Network Job Processing
NL	No Limit
NLG	Nose Landing Gear
NM	Nautical Mile
	Nonmetallic
NMAB	National Materials Advisory Board
NMI	NASA Management Instruction
NMO	Normal Manual Operation
NMR	Nuclear Magnetic Resonance
NOC	Network Operation Control
	Notation of Content
NOES	Normal Operational Environmental Satellite Services
NOR	Normal
NORAD	North American Air Defense Command
NOZ	Nozzle
NP	Neptunium
NPC	NASA Publication Control
NPD	NASA Policy Directive
NPL	Normal Power Level (See RPL)
NPS	NASA Planning Studies
NPSH	Net Positive Suction Head
NPSP	Net Positive Suction Pressure
	Net Positive Static Pressure
NPV	Nitrogen Pressure Valve

NR	Not Required
	Number
NRC	Non-Recurring Costs
NRI	Non-Recurring Investment
NRM	Non-Recurring Maintenance
NRP	Normal Rated Power
NRS	Nonconformance Reporting System
NRT	Near Real Time
NRTS	Not Repairable at This Station
NRZ	Non-Return-To-Zero
NS	Nuclear Shuttle
	Nickel Steel
NSA	National Standards Association
NSI-I	NASA Standard Initiator - Type I
NSN	National Stock Number
NSO	NASA Support Operation
NSP	NASA Support Plan
NSR	National Slow Rate
NSTL	National Space Technology Laboratory
NTO	Nitrogen Tetroxide
NTP	Normal Temperature & Pressure
	Notice To Proceed
	Network Test Panel
NTS	Not To Scale
NTSO	NASA Test Support Office
NUTIS	Numerical and Textual
NVR	Nonvolatile Residue
	No Voltage Release
NW	NASA Waiver
NWS	Nose Wheel Steering
NWSI	New World Services, Inc.
NWT	Nonwatertight

-0-

O2	Gaseous Oxygen
O/D	On Dock
O/ET	Orbiter/External Tank
O/F	Oxidizer-To-Fuel Ratio
O/L-RC	Overload-Reverse Current
O/R	Outside Radius
O/V	Overvoltage
OA	Orbital Assembly
	Output Axis
	Office of Applications
OAA	Orbiter Access Arm
OAFOT	Orbiter Atmospheric Flight Test Office

OAS	Orbiter Aeroflight Simulator
	Orbiter Avionics System
OASPL	Overall Sound Pressure Level
OAST	Office of Aeronautics and Space Technology
OAT	Overall Test
	Operational Acceptance Test
OB	On Board
	Operational Base
OBCO	On Board Checkout (Instrumentation)
OBCS	On Board Checkout Subsystem
OBV	Oxidizer Bleed Valve
O&C	Operations & Checkout (Building)
OC	On-Condition
	On Center
	Open Circuit
	Overcurrent
OCC	Office of Contract Committee
	Operations Control Center
OCDR	Orbiter Critical Design Review
OCDV	Optics Coupling Data Unit (G&N)
OCF	Orbiter Computational Facilities
	Onboard Computational Facility
OCN	Order Control Number
OCO	Open-Close-Open
OCP	Output Control Pulse
OCR	Optical Character Recognition
OCS	Onboard Checkout System
OCT	Octal
OD	Outside Diameter
	Operations Directive
ODB	Operational Data Book
ODCDR	Orbiter Delta CDR
ODES	Optical Discrimination Evaluation Study
ODIN	Orbital Design Integration System
ODRAN	Operational Drawing Revision Advance Notice
ODU	Output Display Unit
OEAS	Orbital Emergency Arresting System
OEEO	Outboard Engine Cutoff
OEM	Original Equipment Manufacturer
OESS	Orbiter/ET Separation Subsystem
O&FS	Operations & Flight Support
OF	Oxygen Fill
	Outside Face
OFCC	Office of Federal Contract Compliance
OFDS	Orbiter Flight Dynamics Simulator
	Oxygen Fluid Distribution System
OFI	Operational Flight Instrumentation
OFK	Official Flight Kit
OFP	Orbiter Flight Program
OFT	Orbital Flight Test
OG	Outer Gimbal (Roll)
	Oxygen Gage
OGA	Outer Gimbal Angle

OGE	Operating Ground Equipment
OGV	Oxygen Gage Valve
OH	Overhaul
	Overhead
OHGV	Orbital Horizontal Ground Vibration Test
OI	Operational Instrumentation
	Orbiter Instrumentation
OIA	Orbiter Interface Adaptor
OIS	Operational Intercommunication System
OISR	Open Item Status Report
OIT	Orbiter Integrated Test
OJT	On the Job Training
OL	Open Loop
OLDB	On-Line Data Bank
OLF	Orbiter Landing Facility
OLIF	Orbiter Landing Instrumentation Facilities
OLOW	Orbiter Lift-Off Weight
OLSA	Orbiter/LPS Signal Adapter
OLSP	Orbiter Logistics Support Plan
O&M	Operation & Maintenance
OM	Outer Marker (ILS)
	Optical Master
OMB	Office of Management and Budget
OMCF	Operations & Maintenance Control File
OMD	Operations & Maintenance Documentation
OMDR	Operations & Maintenance Data Record
OME	Orbital Maneuvering Engine
OMI	Operations & Maintenance Instruction
OML	Outside Mold Line
	Orbiter Mold Line
OMMH	Orbiter Maintenance Man-Hours
OMNI	Omni-Range
	Omnidirectional
OMP	Operations & Maintenance Plan
OMPR	Operational Maintainability Problem Reporting
OMPT	Observed Mass Point Trajectory
OMR	Orbiter Management Review
	Operations & Maintenance Requirements
OMRB	Operating Material Review Board
OMRP	Operations & Maintenance Requirements Plan
OMRS	Operations & Maintenance Requirements Specifications
OMS	Orbital Maneuvering Subsystem
OMU	Optical Measuring Unit
OMV	Oxygen Manual Valve
OND	Operator Need Date
OOD	Orbiter On Dock
OOMM	Organizational Operations & Maintenance Manual
OOS	Orbit-to-Orbit Shuttle
	Orbit-to-Orbit Stage
OP	Oxygen Purge
OPB	Oxidizer Preburner
OPBOV	Oxidizer Preburner Oxidizer Valve
OPE	Other Project Element

OPER	Operational Operate Operator
OPF	Orbiter Processing Facility
OPGUID	Optimum Guidance Technique
OPIS	Orbiter Prime Item Specification
OPL	Open Problem List
OPNS	Operations
OPPAR	Orbiter Project Parts Authorization Request
OPPL	Orbiter Project Parts List
OPR	Office of Primary Responsibility Operations Planning Review
OPS	Orbiter Project Schedule
OPT	Optics Optimum
O&R	Overhaul & Repair
OR	Outside Radius Oxygen Relief
ORB	Orbiter
ORCHIS	Oak Ridge Computerized Hierarchical Information Systems
ORD	Ordnance Operational Ready Data Operational Readiness Date
ORF	Orifice
ORI	Operational Readiness Inspection
ORLA	Optimum Repair Level Analysis
ORR	Operations Requirements Review
ORSDI	Oak Ridge Selective Dissemination of Information
OS	Orbiter CEI Specification Operating System
OSC	Oscillator
OSDH	Orbiter System Definition Handbook
OSE	Operating Support Equipment
OSF	Office of Space Flight (NASA HQ) Ordnance Storage Facility
OSHA	Occupational Safety and Health Act
OSO	Ocean Systems Operation
OSOP	Orbiter Systems Operating Procedures
OSS	Optics Subsystems Orbiting Space Station Orbit-to-Orbit Stage
OSSRH	Orbiter Subsystem Requirements Handbook
OST	Orbiter Support Trolley
OSTP	Orbiting System Test Plan
OT	Operating Time Operational Trajectory Overtime
OTB	Orbiting Tanker Base
OTC	Orbiter Test Conductor
OTD	Operational Technical Documentation
OTDA	Office of Tracking and Data Acquisition
OTH	Over-The-Horizon (Radar)
OTL	Ordnance Test Laboratory

OTO	One-Time-Only
OTP	Operations Turnaround Plan
OTR	Operating Time Record
	Outer
OTS	Off-The-Shelf
OTV	Operational Television
OUT	Output
	Outlet
	Outside
OUTBD	Outboard
OV	Orbiter Vehicle
	Oxygen Vent
OVBD	Overboard
OVF	Overfill
OVFL	Overflow
OVHD	Overhead
OVHT	Overheat
OVLD	Overload
OVRD	Override
OVV	Overvoltage
OWF	Optimum Working Frequency
OXD	Oxide
OXID	Oxidizer
OXY	Oxygen
OZ	Ounce
	Ozone

-P-

P	Period
	Pitch
	Pole
	Primary
P-P	Peak-to-Peak
P/A	Problem Analysis
P/B	Pushbutton
P/C	Pitch Control
P/L	Parts List
	Payload
P/N	Part Number
P/PL	Primary Payload
PA	Pad Abort
	Power Amplifier
	Pulse Amplifier
PAC	Problem Action Center

PACC	Problem Action Control Center
PACTO	Payload Cost Tradeoff Optimization
PAD	Program Approval Document
PAE	Preventive Action Engineer
	Problem Assessment Engineering
PAF	Peak Annual Funding
PAFB	Patrick Air Force Base
PAH	Payload Accommodations Handbook
PALS	Precision Approach Landing System
PAM	Pulse Amplitude Modulation
PAO	Public Affairs Office
PAR	Precision Approach Radar
	Problem Accountability Record
	Problem Action Record
	Problem Action Request
	Product Acceptance Review
PARA	Paragraph
PARS	Property Accountability Record System
PASS	Planning and Scheduling System
PAT	Problem Action Team
PATS	Program for Analysis of Time Series
PAV	Pressure Actuated Valve
PAX	Passenger
PB	Playback
	Phonetically Balanced
PBAN	Polybutadiene Acrylonitrile (Propellant)
PBD	Payload Bay Door
PBDM	Payload Bay Door Mechanism
PBIC	Programmable Buffer Interface Card
PBK	Payload Bay Kit
PBM	Program Business Management
PBPS	Post-Boost Propulsion Systems
PBW	Proportional Band Width
PC	Pulsating Current
PCA	Pneumatic Control Assembly
	Power Control Assembly
	Point of Closest Approach
PCB	Printed Circuit Board
	Power Circuit Breaker
PCC	Pad Control Center
PCCB	Program Configuration Control Board
PCCM	Program Change Control Management
PCCP	Preliminary Contract Change Proposal
PCI	Program Controlled Input
PCIL	Pilot-Controlled Instrument Landing
PCIN	Program Change Identification Number
PCL	Primary Coolant Line
PCM	Pulse Code Modulation
	Punch Card Machine
PCN	Program Control Number
PCO	Post-Checkout
	Procuring Contracting Officer
	Program Controlled Output

PCR	Publication Change Request
	Payload Changeout Room
PCS	Power Conversion System
	Permanent Change of Station
PCTE	Portable Commercial Test Equipment
PCU	Power Control Unit
	Pressure Control Unit
	Process Control Unit
PCV	Pre-Check Verification
	Purge Control Valve
PCVB	Pyro Continuity Verification Box
PCVL	Pilot Controlled Visual Landing
PD	Program Directive
	Preliminary Design
	Project Directive
PD&RS	Payload Deployment & Retrieval Subsystem
PDAR	Program Description and Requirements
PDARS	Program Description and Requirements Baseline
PBD	Performance Data Book
	Power Distribution Box
PDC	Procurement Document Change
PDCS	Power Distribution and Control Subsystem
PDI	Payload Data Interleaver
PDL	Program Design Language
PDM	Pulse Duration Modulation
	Processor Data Monitor
PDM/FM	Pulse Duration Modulation/Frequency Modulation
PDP	Program Development Plan
	Preliminary Definition Plan
	Procurement Data Package
	Project Definition Phase
PDR	Preliminary Design Review
	Processed Data Recorder
	Preliminary Data Requirements
PDRD	Procurement Data Requirements Document
PDRL	Procurement Data Requirements List
PDRM	Payload Deployment & Retrieval Mechanism
PDS	Power Distribution Subsystem
	Package Data System
	Partitioned Data Set
PDU	Pressure Distribution Unit
	Pulse Detection Unit
PE	Project Engineer
PEFO	Payload Effects Follow-on Study
PEIR	Project Equipment Inspection Record
PEM	Plant Engineering and Maintenance
PER	Preliminary Engineering Report
PERT	Program Evaluation Review Technique
PETA	Performance Evaluation & Trend Analysis
PETN	Petaerythrite Tetranitrate



PF	Probability of Failure Parachute Facility Powered Flight Power Factor Preflight Pulse Frequency Prime Function
PFB	Pressure Fed Booster
PFC	Preliminary Flight Certification Performance Flight Certification
PFL	Primary Freon Loop
PFM	Pulse Frequency Modulation
PPF	Program Financial Plan Programmable Function Panel
PERT	Preliminary Flight Rating Test
PG	Pressure Gage
PGA	Pressure Garment Assembly Power Generating Assembly
PGE	Purge
PGNCS	Primary G&N and Control System
PGS	Power Generation Subsystem
PH	Hydrogen Ion Concentration Phase
PHF	Personal Hygiene Facility
P&I	Performance & Interface (Specification)
PI	Procurement Item Preliminary Investigation Program Introduction
PIA	Pre-Installation Acceptance
PIB	Pyrotechnic Installation Building
PIC	Pyro Initiator Controller Pyro Initiator Capacitors Programmable Interval Clock
PICP	Program Interface Control Plan
PICRS	Program Information Coordination & Review Service Program Information Control & Retrieval System
PIDA	Payload Installation & Deployment Aid
PIDS	Portable Image Display System
PIF	Payload Integration Facility
PIGA	Pendulous Integrating Gyro Accelerometer
PIM	Pulse Interval Modulation
PIND	Particle Impact Nose Detection
PIO	Pilot-Induced Oscillation Public Information Office
PIP	Plant Instrumentation Program Production Instrumentation Package Payload Interface Plan
PIPA	Pulse Integrating Pendulum Accelerometers Pulse Integrating Pendulum Assembly
PIRN	Preliminary Interface Revision Notice
PIT	Pre-Installation Test
PK	Peak

PL	Payload
	Prelaunch
	Plug
	Plate
	Post Landing
PLACE	Position Location Aircraft Communications Equipment
PLBK	Playback
PLH	Payload Handling
PLL	Phase Locked Loop
PLM	Payload Management
	Payload Monitoring
PLMS	Program Logistics Master Schedule
PLN	Program Logic Network
PLS	Post Landing & Safing
PLSL	Propellants & Life Support Laboratory
PLSS	Portable Life Support Subsystem
PM	Performance Monitor
	Pulse Modulation
	Phase Modulation
	Planetary Mission
	Program Milestone
PMAT	Page Map Address Table
PMC	Payload Monitoring & Control
	Plutonia-Molybdenum Cermet
	Procurement Method Code
PMDL	Palmdale, California
PMF	Performance Monitor Function
PMHL	Preferred Measurement Hardware List
PMI	Preventive Maintenance Inspection
	Principal Maintenance Inspector
PMN	Program Management Network
PMOM	Performance Management Operating Manual
PMON	Performance Management Operations Network
PMP	Program Management Plan
	Pre-Modulation Processor
PMR	Program Manager's Review
PMS	Performance Management System
	Performance Monitoring System
PMT	Production Monitoring Test
PMU	Pressure Measuring Unit
PN	Part Number
PNEU	Pneumatic
PNL	Panel
PO	Purchase Order
POA	Plan Of Action
POC	Purchase Order Closeout
POCC	Payload Operations Control Center
POCN	Purchase Order Change Notice
POL	Petroleum Oil Lubricants
POLAR	Production Order Location and Reporting
POM	Printer Output Microfilm
POP	Program Operating Plan
	Prelaunch Operations Plan

POR	Purchase Order Request
PORB	Production Operations Review Board
PORCN	Production Order Records Change Notice
PORD	Performance and Operations Requirements Document
PORR	Preliminary Operations Requirements Review
PORT	Portable
POS	Positive
	Pacific Ocean Ship
POST	Program to Optimize Simulated Trajectories
POT	Potentiometer
POV	Peak Operating Voltage
	Pneumatic Operated Valve
PP	Peak-to-Peak
	Partial Pressure
	Push-Pull
	Planning Package
PPB	Parts Per Billion
	Program Performance Baseline
PPF	Payload Processing Facility (USAF)
PPL	Prices Parts List
	Provisioning Parts List
PPM	Parts Per Million
	Pulse Position Modulation
	Pulses Per Minute
PPME	Pacific Plate Motion Experiment
PPS	Pulses Per Second
	Pneumatic Power Subsystem
	Provisioning Performance Schedule
P&R	Performance and Resources
PR	Purchase Request
	Procurement Regulations
	Pressure Regulator
	Performance Report
PRACA	Problem Reporting and Corrective Action
PRB	Panel Review Board
	Parachute Refurbishment Building
PRC	Planning Research Corporation
PRCB	Program Requirements Control Board
PRCBD	Program Requirements Control Board Directive
PRD	Procurement Requirements Document
	Procurement Regulation Directive
	Program Requirements Document (UDS)
PRESS	Pressure
PRF	Pulse Repetition Frequency
PRI	Primary
PRL	Page Revision Log
PRM	Payload Retention Mechanism
PRN	Program Release Notice
	Pseudo-Random Noise
PROC	Procurement
PROG	Program
PROJ	Project
PROM	Programmable Read-Only Memory

PROP	Propulsion
	Propellant
PRR	Program Requirements Review
	Preliminary Requirements Review
	Parts Replacement Request
	Pulse Repetition Rate
PRS	Power Reactant Subsystem
	Payload Retention Subsystem
	Personnel Rescue Service
	Primary Recovery Site
	Provisioning Requirements Statement
PRSD	Power Reactant Storage and Distribution
	Power Reactant Supply and Distribution
PRSS	Problem Report Squawk Sheet
PS	Payload Support
	Pressure Switch
	Parachute Subsystem
	Power Supply
PSA	Power Servo Assembly
	Power Servo Amplifier
	Pressure Switch Assembly
PSAC	Presidential Scientific Advisory Committee
PSC	Program Schedule Chart
PSCN	Preliminary Specification Change Notice
PSD	Power Spectral Density
PSDR	Planning and Scheduling Document Record
PSI	Pounds Per Square Inch (Static Pressure)
PSIA	Pounds Per Square Inch (Absolute Pressure)
PSID	Pounds Per Square Inch (Differential Pressure)
PSIG	Pounds Per Square Inch (Gage Pressure)
PSIS	Pounds Per Square Inch (Sealed)
PSK	Phase Shift Keyed
PSL	Pressure Seal
	Programming Support Library
P&SM	Procurement & Subcontract Management
PSM	Propellant Storage Module
	Pyro Substitute Monitor
PSP	Program Support Plan
PSPL	Priced Spare Parts List
PSRD	Program Support Requirements Document
PSR	Payload Specialist Station
	Propulsion Support System
	Propellant Supply Subsystem
	Pad Safety Supervisor
PSV	Planetary Space Vehicle
PT	Pint
	Point
	Pressure Transducer
PTA	Propulsion Test Article
	Post-Test Analysis
PTC	Passive Thermal Control
	Portable Temperature Controller

PTCR	Pad Terminal Connection Room
PTCS	Propellant Tanking Computer System
PTD	Provisioning Technical Documentation
PTI	Total Pressure
PTM	Pulse Time Modulation
PTP	Point-To-Point Phones
PTR	Program Trouble Report
	Printer
PTT	Push-To-Talk
PU	Propellant Utilization
	Power Unit
	Pickup
PUB	Publication
PUGS	Propellant Utilization & Gauging System
PUV	Propellant Utilization Valve
PV&D	Purge, Vent and Drain
PVA	Preburner Valve Actuator
PVR	Precision Voltage Reference
PVRD	Purge, Vent, Repressurize, and Drain
PVT	Pressure/Volume/Temperature
	Pyrotechnic Verification Test
PVWA	Planned Value of Work Accomplished
PVWS	Planned Value of Work Scheduled
PW	Pulse Width
PWA	Product Work Authorization
	Private Write Area
PWB	Printed Wire Board
PWBS	Program Work Breakdown Structure
PWM	Pulse-Width Modulation
PWR	Power
PY	Program Year
PYRO	Pyrotechnics

Q	Dynamic Pressure
QA	Quality Assurance
QAM	Quality Assurance Manual
QAP	Quality Assurance Procedure
QC	Quality Control
QCDR	Quality Control Deficiency Report
QCOP	Quality Control Operating Procedure
QD	Quick Disconnect
QDS	Quality Data System
QE	Quality Engineer
QEC	Quick Engine Change
QGS	Quantity Gauging System
QLDS	Quick Look Data Station
QPL	Qualified Parts List
	Qualified Products List
QPRD	Quality Planning Requirements Document
QPS	Quality Planning Specification
QRE	Quick-Reaction Estimate
QRI	Quick-Reaction Integration
QRIA	Quick-Reaction Integration Activity
QRS	Quick-Reaction Sortie
QRSL	Quick-Reaction Space Laboratory
QSA	Qualification Site Approval
QSL	Qualified Source List
QSS	Quindar Scanning System
QT	Qualification Test
QTP	Qualification Test Plan
QTR	Qualification Test Report
QTY	Quantity
QUAD	Quadrant
	Quadrangle
	Quadrature
QUADS	Quality Achievement Data System
QUAL	Qualified
	Qualification
QUI	Quito, Ecuador (STDN)
QUIC	Quality Data Information and Control
QVT	Qualified Verification Testing
QVVT	Qualified Verification Vibration Testing

R	Reliability
	Roentgen
	Ratio
	Right
	Range
	Rankine
	Replace
	Receive
R-T	Resistance Test
R/A	Radar Altimeter
R/I	Receiving Inspection
R/L	Remote/Local
R/T	Receiver/Transmitter
R/W	Runway
RAC	Reliability Action Center
RACS	Remote Automatic Calibration System
RAD	Radiation Dosage
	Radius
	Radian
	Rapid Access Datafile
RADAR	Radio Detection And Ranging
RAF	Requirements Analysis Form
RAG	Reusable Agena
RAI	Roll Attitude Indicator
RAL	Responsibility Assignment List
RALT	Radar Altimeter
RALPH	Reduction & Acquisition of Lunar Pulse Heights
RAM	Responsibility Assignment Matrix
	Random Access Memory
	Radar Absorbtion Material
RAMA	Recap and Movement Authorization
RANC	Radar Absorbtion Noise & Clutter
RANN	Research Applied to National Needs
RAPCON	Radar Approach and Control
RAS	Requirements Allocation Sheet
RATCC	Radar Air Traffic Control Center
RAU	Remote Acquisition Unit
	Regional Acquisition Unit
RAX	Remote Access Computing System
	Remote Access Terminal
RBC	Rotating Beam Celiometer
RMBT	Retrospective Bibliographies on Magnetic Tape
RBN	Radio Beacon
RC	Resistance-Capacitance
	Range Command
	Rotation Control
RCC	Reinforced Carbon-Carbon

RCCB	Remote Control Circuit Breaker
RCDR	Recorder
RCPT	Receptacle
RCN	Requirements Change Notice
RCS	Reaction Control Subsystem
RCSC	Reaction Control Subsystem Controller
RCV	Receive
RCVR	Receiver
RCVY	Recovery
R&D	Research and Development
R&DO	Research and Development Operations (MSFC)
RD	Requirements Document
	Reference Designator
RDA	Resident Data Area
RDC	Request for Document Change
RDD	Requirements Definition Document
RDF	Radio Direction Finder
RDP	Requirements Development Plan
RDR	Raw Data Recorder
RDS	Rocketdyne Digital Simulator
RDX	Cyclotrimethylenetrinitramine
RDT&E	Research, Development, Test and Evaluation
RE	Responsible Engineer
RE&T	Research Engineering & Test
REC	Record
RECP	Request for Engineering Change Proposal
RECS	Representative Shuttle Environmental Control System
RECT	Rectifier
RECV	Receiver
REF	Reference
	Refurbishment
REG	Regulator (Regulate)
REIL	Runway End Identification Lights
REI-M	REI-Mollite
REJ	Reject
REL	Release
REM	Remove
REPL	Replace
RPS	Record and Playback Subsystem
REQ	Request
	Require
REQMT	Requirement
RESVR	Reservoir
RE&T	Research Engineering & Test
NETS	Reconfigurable Electrical Test Stand
REV	Reverse
	Review
	Revision
	Revolution
RF	Radio Frequency
RFA	Request For Action
	RF Authorization (Frequency)
RFB	Request For Bid



RCF	Radio Frequency Charts
RFCP	Request For Computer Program
RFD	Requirements Formulation Documents
RFE	Request For Estimate
RFEI	Request For Engineering Information
RFI	Radio Frequency Interference
	Request For Information
	Remote Facility Inquiry
	Remote File Inquiry
RFP	Request For Proposal
RFPA	Request For Proposal Authorization
RFQ	Request For Quotation
RGA	Rate Gyro Assembly
RGP	Rate Gyro Package
RH	Relative Humidity
	Right Hand
RHC	Rotation Hand Controller
RHCP	Right Hand Circular Polarization
RHEB	Right Hand Equipment Bay
RHL	Residual Hazards List
RHS	Rocketdyne Hybrid Simulator
RHT	Radiant Heat Temperature
RHU	Radioisotope Heater Unit
RI	Rockwell International
RIB	Recoverable Item Breakdown
RIC	Rockwell International Corporation
	Resistance Inductance and Capacitance
RID	Review Item Disposition
RIF	Relative Importance Factor
RIG	Rate Integrating Gyro
RIL	Recoverable Item List
RIR	Reportable Item Report
RIS	Reporting Identification Symbols
RISKAC	Risk Acceptance
RIU	Remote Interface Unit
RJC	Reaction Jet Control
RJD	Reaction Jet Device
RJDA	Reaction Jet Driver-Aft
RJDF	Reaction Jet Driver-Fwd
RJ/EC	Reaction Jet/Engine Control
RJOD	Reaction Jet OMS Driver
RLEO	Request Liaison Engineering Order
RM	Rescue Module
	Reference Mission
RMS	Remote Manipulator Subsystem
	Root Mean Square
	Radian Means Per Second
ROC	Record Of Comments
	Request Of Change
ROM	Rough Order of Magnitude
	Read-Only Memory
ROT	Remaining Operating Time
R&P	Reserve and Process

R&PM	Research & Program Management
RP	Repair Period
	Rocket Propellant
	Relative Pressure
RPA	Request for Procurement Action
RPC	Remote Power Controller
RPE	Reliability Project Engineer
RPIE	Real Property Installed Equipment
RPL	Rated Power Level
RPM	Revolutions Per Minute
RPP	Reinforced Pyrolytic Plastic
RPS	Revolutions Per Second
RPTA	Rudder Pedal Transducer Assembly
RPV	Remotely Controlled Vehicle
R&QA	Reliability & Quality Assurance
RQMTS	Requirements
R&R	Remove & Replace
RR	Requirements Review
	Rendezvous Radar
RRL	Rudder Reference Line
RRP	Rudder Reference Plane
RRT	Rendezvous Radar Transponder
RS	Rawinsonde
	Refurbishment Spare
	Right Side
RSD	Requirements & Specifications Document
RSF	Refurbish & Subassembly Facilities
RSI	Reusable Surface Insulator
RSPL	Recommended Spare Parts List
RSS	Root Sum Square
	Reactants Supply System
RSSPO	Resident Space Shuttle Projects Office
RSU	Remote Service Unit
RT	Reference Trajectory
RTAC	Research & Technology Advisory Committee
RTB	Resistance Temperature Bulb
RTC	Real-Time Command
RTCC	Real-Time Computation Center (NASA)
	Real-Time Computer Command (Uplink)
RTCE	Rotation/Translation Control Electronics
RTCP	Real-Time Communications Processor
RTCS	Real-Time Computer System
RTD	Resistance Temperature Device
RTE	Responsible Test Engineer
RTG	Radioisotope Thermal Generators
RTHC	Rotation-Translation Hand Controller
RTHS	Real-Time Hybrid System
RTLS	Return to Launch Site
RTS	Remote Tracking Station
RTV	Room-Temperature Vulcanized
RUPT	Interrupt
	Rupture

RV	Reentry Vehicle
	Recovery Vehicle
	Relief Valve
	Recovery Vessel
RVCF	Remote Vehicle Checkout Facility
RVDT	Rotary Variable Differential Transducer
	Rotary Variable Differential Transformer
RVN	Requirements Verification Network
RVR	Runway Visual Range
RVS	Reverse
RYD	Real-Year Dollars
RX	Receive
RZ	Return-to-Zero

-S-

S	Second
	Side
	Ster <sup>2</sup>
S*	Second (Astronomical Tables)
S-BD	S-Band
S-N	Stress Number
S/A	Site Activation
	Safe and Arm
	Subassembly
	Spacecraft Adapter
S/AC	Stabilization/Attitude Control
S/C	Spacecraft
	Software Contractor
	Subcontractor
S/F	Safety Factor
S/G	Strain Gage
S/L	Sortie Lab
	Shops & Labs
S/M	Service/Maintenance
S/N	Serial Number
	Signal-to-Noise Ratio
S/O	Shutoff
	Switchover
S/P	Signal Processor
	Serial to Parallel
S/R	Send and Receive
S/S	Samples-per-Second
	Single Sideband

S/Sys	Subsystem
S/V	Space Vehicle
S/W	Software
SA	Supplemental Agreement
	Shaft Angle
	Subaccount
SA-ALC	San Antonio Air Logistics Center
SAAC	Schedule Allocation and Control
SAB	Storage and Assembly Building
SAC	Strategic Air Command (USAF)
SAD	Shuttle Authorized Document
	System Allocation Document
SAE	Society of Automotive Engineers
SAEF	Spacecraft Assembly & Encapsulation Facility
SAFE	San Andreas Fault Experiment
SAGE	Stratospheric Aerosol Gas Experiment
SAIL	Shuttle Avionics Integration Laboratory, JSC
SAL	Shuttle Avionics Laboratory
SAM	Shuttle Attachment Manipulator
SAMS	Shuttle Attachment Manipulator System
SAMSO	Space and Missile Systems Organization (USAF)
SAMTEC	Space and Missile Test Center (VAFB, CA)
SAND	Site Activation Need Date
SAP	Strain Arrestor Plate
SAR	Safety Analysis Report
SARP	Safety Analysis Report for Packaging
SAS	Stability Augmentation Subsystem
SAT	Saturated
SATS	Shuttle Avionics Test System
	Small Applications Technology Satellite
SAU	Strap Around Unit
SB	Space Base
	Synchronization Base
SBA	Structure Borne Acoustic
	Small Business Administration
SBCR	Stock Balance and Consumption Report
SBD	Schematic Block Diagram
SBHC	Speed Brake Hand Control
SC	Signal Conditioner
	Service Charge
	Scale
	Statement Capability
SCA	Shuttle Carrier Aircraft
	Schedule Change Authorization
	Sneak Circuit Analysis
SCAN	Selected Current Aerospace Notice
SCAPE	Self-Contained Atmospheric Protective Ensemble
SCARS	Serialized Control and Record System
SCB	Software Control Board
	Schedule Change Board
	Specification Control Board
SCC	Standard Cubic Centimeters
SCCH	Standard Cubic Centimeters per Hour

SCCM	Standard Cubic Centimeters per Minute
SCCS	Standard Cubic Centimeters per Second
SCD	Specification Control Document
	Source Control Drawing
	Specification Control Drawing
SCDA	Safing, Cool Down and Decontamination Area
SCDP	Simulation Control Data Package
SCDR	Shuttle Critical Design Review
	Seller Critical Design Review
	Subcontractor Critical Design Review
SCE	Signal Conditioning Equipment
SCF	Satellite Control Facility
	Sequenced Compatibility Firing
	Standard Cubic Feet
SCFH	Standard Cubic Feet per Hour
SCFM	Standard Cubic Feet per Minute
SCFS	Standard Cubic Feet per Second
SCHEM	Schematics
SCIM	Standard Cubic Inches per Minute
SCIS	Standard Cubic Inches per Second
SCIT	Standard Change Integration and Tracking
SCIL	Secondary Coolant Line
	Specification Change Log
SCM	Subsystem Configuration Management
SCMP	System Contractor Management Plan
SCN	Specification Change Notice
SCO	Subcarrier Oscillator
	Start Checkout
SCP	Specific Candle Power
SCR	Sneak Circuit Report
	Software Change Request
	Schedule Change Request
SCS	Stabilization and Control Subsystem
SCT	Scanning Telescope
SCU	Secondary Control Unit
SD	Space Division (Rockwell)
	Specification Document
SDA	Source Data Automation
SDC	Spares Disposition Code
	Software Development Computer
SDCS	Sail Date Communications System
SDD	Software Description Document
	Shuttle Design Directive
	Software Design Document
SDE	Space Division Evaluator
SDF	System Development Facility (Breadboard)
	Single Degree of Freedom
SDH	Software Development Handbook
SDL	Software Development Laboratory
	Standard Distribution List
SDM	System Definition Manual
SDN	Software Development Note

SDR	Software Design Requirement
	System Design Review
SDRB	Software Design Review Board
SDS	Shuttle Dynamic Simulation
	Software Design Specification
SDSS	Space Division Shuttle Simulator
SDT	Structural Dynamic Test
SDTA	Structural Dynamic Test Article
SE	Support Equipment
	System Element
SEA	Scanning Electrostatic Analysis
	Silicon Elastimeter Ablator
SEACF	Support Equipment Assembly and Checkout Facility
SEID	Support Equipment Abbreviated Items Description
SEB	Source Evaluation Board
SEC	Secondary
	Second
	Sequential Events Controller
	Source Evaluation Committee
SECS	Shuttle Events Control Subsystem
SE/FAC	Support Equipment/Facility
SE&I	Systems Engineering and Integration
SEI	Support Equipment Installation
SEICO	Support Equipment Installation and Checkout
SEM	Seller's Engineering Memo
	Space Environmental Monitoring
	System Engineering Management
	System Exception Manage
SEMS	Space Environment Monitor System
SEND	Shared Equipment Negl Date
SEO	Special Engineering Order
SEOS	Synchronous Earth Observation Satellite
SEP	Separation
SEPAP	Shuttle Electrical Power Analysis Report
SEQ	Sequence
SER	Serial
SERB	Systems Engineering Review Board
	Shuttle Engineering Review Board
SERS	Shuttle Equipment Record System
SES	Shuttle Engineering Simulation
	Special Emphasis Study
ESL	Space Environmental Simulation Laboratory
SF	Static Firing
	Subcontractor Furnished
	Square Feet
SFC	Specific Fuel Consumption
SFCS	Survival Flight Control System
SFL	Secondary Freon Loop
SFP	Single Failure Point
SFPA	Single Failure Point Analysis
SFPPL	Short Form Provisioning Parts List
SFPS	Single Failure Point Summary

SFT	Static Firing Test
	Simulated Flight Test
SFTA	Structural Fatigue Test Article
SFTF	Static Firing Test Facility
SFU	SMSI Firing Unit
SGLS	Space Ground Link Station
SGOS	Shuttle Ground Operations Simulator
SH2	Supercritical Hydrogen
SHA	Sidereal Hour Angle
SHAG	Simplified High Accuracy Guidance
SHERB	Sandia Human Error Rate Bank
SHF	Super High Frequency
SHLB	Simulation Hardware Load Boxes
SHP	Shaft Horsepower
SI	International System of Units
SIA	Software Impact Assessment
SID	System Interface Document
SIL	Systems Integration Laboratory
	Sound Interference Level
	Silver
SIM	Simulation
	Scientific Instrumentation Module
SIMAS	Shuttle Information Management Accountability System
SIMS	Shuttle Inventory Management System
SIN	SINE
SIO	Systems Integration Office
SIR	Systems Integration Review
SIS	Software Implementation Specifications
	Systems Integration Schedule
	Software Integrated Schedule
SIT	Shuttle Integrated Test
	Software Integrated Test
SIVE	Shuttle Interface Verification Equipment
SL	Sea Level
	Space Lab
	Sound Level
SLAC	Stanford Linear Accelerator Center
SLAM	Side Load Arrest Mechanism
SLAR	Side Looking Airborne Radar
SL&I	System Load and Initialization
SLS	Secondary Landing Site
	Statement Level Simulator
SM	Support Module
	Stable Member
SMAB	Solid Motor Assembly Building
SMC	Scientific Manpower Commission
SMCC	Shuttle Mission Control Center
SMD	Special Measuring Device
SMES	Shuttle Mission Evaluation Simulation
	Shuttle Mission Engineering Simulator
	Superconducting Magnetic Energy Storage
SMM	Subsystem Measurement Management
SMMD	Specimen Mass Measurement Device

SM/PM	System Management/Performance Monitor
SMPM	Structural Materials Property Manual
SMR	Source, Maintenance and Repair (Code)
SMRD	Spin Motor Run Discrete
SMS	Shuttle Mission Simulator
	Separation Mechanism Subsystem
SMSI	Standard Manned Space Flight Initiator (See NSI-I)
SMVP	Shuttle Master Verification Plan
SMVRD	Shuttle Master Verification Requirements Document
SNF	System Noise Figure
SNSO	Space Nuclear Systems Office
SOAR	Shuttle Orbital Applications and Requirements
SOARS	Shuttle Operations Automated Reporting System
SOATS	Support Operations Automated Training System
SOC	System Option Controller
SOCC	Satellite Operations Control Center
SODB	Shuttle Operational Data Book
SOF	Safety Of Flight
SOFI	Spray-On Foam Insulation
SOFT	Space Operations and Flight Techniques
SOM	Standard Operating Manual
	Spares Optimization Model
	(NASA) Ship Operations Manager
SOP	Standard Operating Procedure
	Subsystem Operating Procedure
	Systems Operation Plan
	Secondary Oxygen Pack
SOR	Specification Operational Requirement
SOT	Strap-On Tank
SOV	Shutoff Valve
	Solenoid Operated Valve
SOW	Statement Of Work
	Subdivision Of Work
SOX	Supercritical Oxygen
SP	Shuttle Projects Office (KSC)
	Single Pole
	Standard or Peculiar
SP-AF	Air Force STS Liaison Office (KSC Shuttle)
SPA	Shared Peripheral Area
	Signal Processor Assembly
	Space Processing Application
SPART	Space Research and Technology
SPC	Shipping and Packing Cost
	Starting Point Code
SPE	Static Phase Error
SPEC	Specification
SPECT	Spectrometer
SP-FGS	Flight & Ground Systems Office, KSC Shuttle (Was SP-GSP)
SPF	Spacelab Processing Facility
SPFA	Single Point Failure Analysis
SPFP	Single Point Failure Potential
SPG	Single Point Ground
SP-ILS	Integrated Logistics Support (KSC Shuttle)



SPI	Surface Position Indicator
SPICE	Spacelab Payload Integration & Coordination In Europe
SPII	Shuttle Program Implementation Instruction
SPIMS	Shuttle Program Information Management System
SPL	Sound Pressure Level
	System Programming Language
SP-MPC	Management Planning and Control Office (KSC Shuttle)
SPM	Subsystem Project Manager
SP-OPN	Operations Planning Office (KSC Shuttle)
SPO	Spare Parts Order
SP-PAY	Payload Integration Office (KSC Shuttle)
SPPII	Shuttle Preferred Pyrotechnic Items List
SPPL	Spare Parts Provisioning List
SPR	Software Problem Report
	Subcontractor Performance Review
SPRAG	STS Payload Requirements & Analysis Group
SPS	Samples Per Second
	Shuttle Procedures Simulator
	Service Propulsion Subsystem
SPTD	Supplementary Provisioning Technical Documentation
SQ FT	Square Feet
SR	Support Request
	Status Review
	Status Report
	Status Register
	Standard Repair
	Shift Register
SRA	Support Requirements Analysis
	Spin Reference Axis
SRB	Solid Rocket Booster
SRBAB	SRB Assembly Building
SRBDF	SRB Disassembly Facility
SRCB	Software Requirements Change Board
SRCBD	Software Requirements Change Board Directive
SRD	Shuttle Requirements Document
	Shuttle Requirements Definition
	Systems Requirements Document
SRDH	Subsystems Requirements Definition Handbook
SRF	Shuttle Refurbish Facility
SRH	Subsystems Requirements Handbook
SRM	Solid Rocket Motor
	Specification Requirements Manual
	Standard Reference Material
SRN	Software Release Notice
SR&Q	Safety, Reliability and Quality
SR&QA	Safety, Reliability and Quality Assurance
SRR	System Requirements Review
	Site Readiness Review
SRS	Software Requirements Specification
	Specification Revision Sheet
	Support Requirement System
SFSR	Schedule and Resources Status Report

SRT	Supporting Research and Technology
	Specification Requirements Table
SRU	Shop-Replaceable Unit
	Shop Replacement Unit
SS	Space Shuttle
	Station Set
	Space Station
	Subsystem
SS&A	Space Systems and Applications
SSA	Shuttle Simulation Aircraft
SSAT	Shuttle Service and Access Tower
SSB	Single Sideband
	Source Selection Board
SSBC	Summary Sheet Bar Chart
SSC	Subsystem Sequence Controller
	Shuttle System Contractor
	Solid-Solution Cement
SSCA	Surface Sampler Control Assembly
SSCHS	Space Shuttle Cargo Handling System
SSCL	Shuttle System Commonality List
SSDH	Subsystem Data Handbook
SSE	Subsystem Element
	Subsystem Support Equipment
SSFGSS	Space Shuttle Flight & Ground System Specification
SSFL	Santa Susana Field Laboratory
SSHB	Station Set Handbook
SSI	Significant Structural Item
SSIBD	Shuttle System Interface Block Diagram
SSITP	Shuttle System Integrated Test Plan
SSM	Subsystem Manager
SSME	Space Shuttle Main Engine
SSMECA	SSME Controller Assembly
SSP	Space Shuttle Program
	Small Sortie Payload
SSPD	Shuttle System Payload Data
	Shuttle System Payload Definition Study
SSPM	Space Shuttle Program Manager
SSPO	Space Shuttle Program Office
SSPPSG	Space Shuttle Payload Planning Steering Group
SSPRO	Space Shuttle Program Resident Office
SSPS	Space Shuttle Program Schedule
SSPTF	Santa Susana Propulsion Test Facility (See SSFL)
SSR	Station Set Requirement
	Shop Support Request
SSRD	Station Set Requirements Document
SSRN	System Software Reference Number
SSRR	Station Set Requirements Review
SSS	Stage Separation Subsystem
SSSS	Space Shuttle System Specification
SST	Structural Static Test
SSTC	Space Shuttle Test Conductor
SSUS	Spin Stabilized Upper Stage
SSV	Space Shuttle Vehicle

ST	Sequential Timer
	Star Tracker
	Structural
	Special Tooling
STA	Shuttle Training Aircraft
	Structural Test Article
	Static Test Article
	Station
STAB	Stabilizer
STADAC	Station Data Acquisition and Control
STAG	Shuttle Turnaround Analysis Group
STAR	Shuttle Turnaround Analysis Report
	Scientific and Technical Report
STARR	Schedule, Technical and Resources Report
STC	Systems Test Complex
	Standard Test Configuration
STD	Standard
STDN	Spaceflight Tracking and Data Network
STE	Special Test Equipment
	System Test Engineer
STF	Structural Fatigue Test
STG	Stage
STIL	Software Integration Laboratory
STLOS	Star Line Of Sight
STM	Signal Termination Module
STN	Software Trouble Note
STP	Shuttle Technology Panel
STPH	Static Phase Error
STRG	Steering
STRL	Structural
STS	Space Transportation System
STSR	System Test Summary Report
STU	Special Test Unit
SU	Support Unit
SUP	Supply
SURE	Shuttle Users Review and Evaluation
SV	Space Vehicle
	Safety Valve
	Solenoid Valve
SVA&C	Shuttle Vehicle Assembly and Checkout
SVAB	Shuttle Vehicle Assembly Building
SVB	Shuttle Vehicle Booster
SVC	Supervisor Call
SVDS	Space Vehicle Dynamic Simulator
SW	Short Wave
	Software
	Switcher (Switch)
	Solar Wing
SWA	Support Work Authorization
SWAD	Subdivision of Work Authorization Document
SWAT	Stress Wave Analysis Technique
SWOB	Salaries, Wages, Overhead and Benefits
SWP	Safe Working Pressure

SXT	Sextant
SYM	Symbol
SYMM	Symmetrical
SYN	Synchronous
	Synthetic
SYNC	Synchronize
SYS	System
SYSTRAN	Systems Analysis Translator

-T-

T	Test
	Time
T-	Time Prior to Launch
T-0	Takeoff
T/A	Turnaround
T/C	Termination Check
T/D	Touchdown
	Time Delay
T/E	Transporter Erector
T/L	Talk and Listen
T/R	Transmit-Receive
	Tape Recorder
	Transformer Rectifier
T/T	Terminal Timing
	Timing/Telemetry
T/TCA	Thrust/Translation Control Assembly
T/V	Thermal/Vacuum
T/W	Thrust-to-Weight
TA	Test Article
	Task Analysis
	Trunion Angle
	Travel Authorization
TAA	Technical Assistance Agreement
TAC	Total Average Cost
TACAN	Tactical Air Navigation
TACO	Test and Checkout Operations
TAEM	Terminal Area Energy Management
TAG	Technical Air-to-Ground
TAIR	Test Assembly Inspection Record
TALAR	Tactical Approach and Landing Radar
TAM	Thermal Analytical Model
TAP	Telemetry Acceptance Pattern
	Technical Achievement Plan
	Total Air Pressure

TAR	Test Action Requirement
	Test Agency Report
TAS	Technical Analysis Request
	Telemetry Antenna Subsystem
	True Airspeed
TASPR	Technical and Schedule Performance Report
TAT	Total Air Temperature
TB	Talk Back
	Terminal Base
TBA	To Be Added
TBD	To Be Determined
	To Be Developed
TBE	To Be Evaluated
TBN	To Be Negotiated
TBP	To Be Provided
TBS	Task Breakdown Structure
	To Be Specified
	To Be Supplied
TC	Telecommunications
	Thermocouple
	Test Conductor (Controller)
	Temperature Compensating
	Traceability Code
	Tracking Camera
	Thrust Chamber
TCA	Thrust Chamber Assembly
	Translation Controller Assembly
TCB	Task Control Block
TCC	Thermal Control Coating
TCO	Test Completion Date
TCG	Time Code Generator
TCID	Test Configuration Identifier
TCMD	Transportation Control and Movement Document
TCN	Transportation Control Number
TCOP	Test and Checkout Plan
TCP	Test Checkout Procedure
TCR	Thermal Concept Review
TCRSD	Test and Checkout Requirements Specification Document
TCS	Thermal Control Subsystem
	Test Control Supervisor
TCTI	Time Compliance Technical Instruction
TCTO	Time Compliance Technical Order
TCU	Tape Control Unit
TD	Technical Directive
	Terminal Distributor
TDD	Task Description Document
TDM	Time-Division Multiplexing
TDP	Temperature and Dewpoint
TDR	Technical Design Review
	Technical Documentation Report
TDRS	Tracking and Data Relay Satellite
TDRSS	Tracking and Data Relay Satellite System
TDS	Test Data System

TE	Test Equipment
TECH	Technician
TELCOM	Telecommunications
TEMP	Temperature
TEP	Technical Evaluation Panel
TER	Test Equipment Readiness
	Time Estimating Relationship
TERL	Test Equipment Readiness List
TF	Test Facility
	Test Fixture
TFC	Time From Cutoff
TFCS	Triplex Flight Control Subsystem
TFE	Time From Event
TFI	Time From Ignition
TFL	Time From Launch
TFS	Telemetry Format Selection
TGA	Thermal Gravimetric Analysis
TGS	Telemetry Ground System
	Telemetry Ground Station
TGSE	Telemetry Ground Support Equipment
TGT	Target
THC	Translation Hand Controller
TI	Technical Integration
TIC	Technical Information Center
TIFS	Total Inflight Simulator
III	Tooling Inspection Instrumentation
TL	Lot Traceability
	Thrust Level
TLM	Telemetry
TM	Member Traceability
	Technical Management
	Traffic Model
TMB	Transportation Management Bulletin
TMC	Test Monitoring Console
TMF	Transporter Maintenance Facility
TMO	Tool Manufacturing Order
TMP	Terminal Panel
TMPV	Torquemotor Pilot Valve
TMU	Temperature Measurement Unit
TN	Technical Note
TO	Technical Order
TOC	Test Operations Center
	Test Operations Change
TOL	Tolerance
TOT	Total
TP	Transition Period
	Test Point
TPA	Test Preparation Area
TP&C	Thermal Protection and Control
TPE	Test Project Engineer
TPF	Tug Processing Facility
	Terminal Phase Finish
TPI	Terminal Phase Initiation

TPM	Technical Performance Measurement (system)
TPR	Test Problem Report
TPS	Thermal Protection Subsystem
TPUN	Test Procedure Update Notice
TR	Test Request
	Technical Report
	Transportation Request
TRA	Training Requirements Analysis
	Turnaround Requirements Analysis
TRR	Test Readiness Review
TRS	Tug Rotational System
	Troubleshooting Record Sheet
TRSD	Test Requirements Specification Document
TS	Serial Traceability
	Tensile Strength
	Test Site
	Technical Support
TSA	Test Start Approval
TSAC	Tracking System Analytic Calibration
TSB	Twin Sideband
TSC	Test Setup Complete
TSD	Test Start Date
TSE	Transportation Support Equipment
TSLD	Troubleshooting Logic Diagram
TSM	Trade Study Management
	Tail Service Mast
TSO	Time Since Overhaul
	Time Sharing Option
TSP	Test Software Program
	Twisted Shielded Pair
TSR	Technical Status Review
TSRA	Total System Requirements Analysis
TSS	Tug Structural Support
TST	Test By Seller
TSW	Test Switch
TT	Thrust Termination
	Total Time
TTA	Thermomechanical Test Area
TTCA	Thrust Translation Controller Assembly
TTCV	Tracking Telemetry, Command and Voice
TTIEL	Tool and Test Equipment List
TTL	Transistor-Transistor Logic
TTU	Timing Terminal Unit
TTY	Teletype
TU	Technical Utilization
TV	Thermal Vacuum
	Television
	Thrust Vector
TVA	Thrust Vector Alignment
TVAR	Test Variance
TVC	Thrust Vector Control
	Thermal Vacuum Chamber
TVCD	Thrust Vector Control Driver

T/N	Test Verification Network
TVP	Test Verification Program
T/V	Thermal Vacuum Test
TVTA	Thermal Vacuum Test Article
TWR	Tower
TWT	Trisonic Wind Tunnel
TWX	Teletype Wire Transmission

-U-

U	Micro (Micron)
	Uranium
U/C	Under Current
U/L	Uplink
U/M	Unmanned
U/O	Used On
U/V	Under Voltage
U/W	Used With
UA	Micro Ampere
UC	Unsatisfactory Condition
UCN	Uniform Control Number
UCR	Unsatisfactory Condition Report
UCS	Universal Control System
	Utilities Control System
UD	Update
UDB	Update Buffer
UDF	Utility and Data Flow
UDL	Update Link
UDS	Universal Documentation System
UER	Unique Equipment Register
UF	Microfarad
UFD	User File Directory
UG	Microgram
UHF	Ultrahigh Frequency
UI	Unit of Issue
ULL	Ullage
ULO	Unmanned Launch Operations
ULT	Ultimate
UMB	Umbilical
UMO	Unmanned Orbital
UMVF	Unmanned Vertical Flight
UPTLM	Up-Link Telemetry
US	United States
USAF	United States Air Force



USB	Upper Side Band
	Unified S-Band
USB E	Unified S-Band Equipment
USBS	Unified S-Band System
USEC	Microsecond
USNS	United States Navy Ship
USS	United States Standard
	United States Ship
UST	United States Testing Company
UT	Universal Time
UTC	United Technology Center
	Universal Test Console
UTE	Universal Test Equipment
UU	Micromicron
UUT	Unit Under Test
UV	Under Voltage
	Ultraviolet
	Microvolt
UVD	Under Voltage Device
UVF	Unmanned Vertical Flight
UW	Microwatt

-V-

V	Velocity
	Volt
	Voice
V-A	Vibro Acoustic
V/C	Vector Control
V/H	Velocity-to-Height
VA	Volt-Ampere
VAB	Vehicle Assembly Building
VAC	Volts - Alternating Current
	Vacuum
	Vehicle Assembly and Checkout
VAFB	Vandenberg Air Force Base
VAN	USNS Vanguard (STON)
VAR	Variable (Variance-Variation)
	Volt-Ampere Reactive
VASI	Visual Approach Slope Indicator
VAST	Versatile Avionics System Tester
VAT	Vibro-Acoustic Test
VATA	Vibro-Acoustic Test Article
VATF	Vibro-Acoustic Test Facility

VATVTA	Vibro-Acoustic/Thermal/Vacuum Test Article
VC	Vector Character
	Velocity Counter
VCB	Vertical Location of the Center of Buoyancy
VCG	Vertical Location of the Center of Gravity
VCI	Velocity Change Indicator
VCM	Volatile Condensable Materials
VCO	Voltage Controlled Oscillator
VCT	Voltage Control Transfer
VGTR	Vector
VDC	Volts - Direct Current
VDS	Vehicle Dynamics Simulator
VEEI	Vehicle Electrical Engine Interface
VEH	Vehicle
VERIF	Verification
VERT	Vertical
VF	Vertical Flight
	Video Frequency
VFI	Verification Flight Instrumentation
VFO	Variable Frequency Oscillator
VFR	Visual Flight Rules
VFT	Vertical Flight Test (superceded by OFT)
VGP	Vehicle Ground Point
VGt	Vehicle Ground Test
VHF	Very High Frequency
VHF-AM	Very High Frequency Amplitude Modulator
VHF-DF	Very High Frequency Direction Finder
VIA	By Means Of (By Way Of)
VIB	Vibration
VID	Video
VIS	Verification Information System
	Visibility
VISC	Viscosity
VJ	Vacuum Jacketed
VLF	Very Low Frequency
VLR	Very Low Range
VM	Voltmeter
	Virtual Memory
VMS	Velocity Measuring System
VOL	Volume
VOM	Volt-Ohmmeter
VOR	VHF Omnidirectional Radio Range
VORTAC	Variable Omni Range Tactical (VOR and TACAN)
VOT	VHF Omnitest
VOX	Voice Operated Transmitter
VP	Vertical Polarization
	Vacuum Pump
VP-P	Volt Peak-to-Peak
VPK	Volts Peak
VPM	Vehicle Project Manager
VR	Voltage Relay
VRB	VHF Recovery Beacon
VRL	Vertical Recovery Line

VRMS	Volts Root-Mean-Square
VS	Staging Velocity
VSA	Variable Stability Aircraft
VSI	Vertical Speed Indicator
	Video Simulation Interface
VSWR	Voltage Standing Wave Ratio
VTP	Vehicle Test Plan
	Verification Test Program
VTR	Video Tape Recorder
VTS	Vertical Test Stand
VTVM	Vacuum Tube Voltmeter
VTX	Vertex
VU	Volume Unit
VV	Vent Valve
VX	Velocity Along the X-Axis
VY	Velocity Along the Y-Axis
VZ	Velocity Along the Z-Axis

-W-

W	Watt
	Wide
W/	With
W/B	Wideband
W/G	Water/Glycol
W/O	Without
W/T	Wind Tunnel
WA	Work Authorization
WAD	Work Authorization Document
WB	Wet Bulb
WBS	Work Breakdown Structure
WBTS	Wideband Transmission System
W&C	Wire and Cable
WCP	Wing Chord Plane
WCS	Work Control System
WD	Work Days
	Width
WEA	Weather
WG	Wave Guide
	Wing
WHL	Wheel
WHR	Watt-Hour
WIB	When Interrupt Block
WIF	Water Immersion Facility

WIP	Work In Progress
WL	Wavelength
WM	Waste Management
WO	Work Order
WOW	Weight-On-Wheels
WP	Working Pressure
	Work Package
WPAFB	Wright Patterson Air Force Base
WPC	Watts Per Candle
WPF	Work Process Flow
WPI	Work Progress Indicator
WPM	Words Per Minute
WRG	Wiring
WRL	Wing Reference Line
WS	Wind Shield
WSMR	White Sands Missile Range
WSTF	White Sands Test Facility
WSWR	Variable Standing Wave Ratio (Rate)
WT	Weight
WTR	Western Test Range
WTT	Wind Tunnel Test
WUC	Work Unit Code
WX	Weather

-X-

X	Times (By, Trans-)
XCVR	Transceiver
XCDR	Transducer
XFD	Crossfeed
XFER	Transfer
XLTN	Translation
XMT	Transmit
XPNDR	Transponder
XTAL	Crystal
X sub O	Orbiter Structural Body Reference, X-Axis
X sub P	Payload Structural Body Reference, X-Axis
X sub S	SRB Structural Body Reference, X-Axis
X sub T	ET Structural Body Reference, X-Axis

-Y-

Y	Yaw
	Horizontal Axis - Width of Vehicle
	Y-Axis, Horizontal - Width of Vehicle/Structure
YD	Yard
YP	Yield Point
YR	Year
YS	Yield Strength
YST	Yearly Spares Cost
YT	Station Identification Symbol
Y sub O	Orbiter Structural Body Reference, Y-Axis
Y sub P	Payload Structural Body Reference, Y-Axis
Y sub S	SRB Structural Body Reference, Y-Axis
Y sub T	ET Structural Body Reference, Y-Axis

-Z-

Z	Zulu (Greenwich Mean Time - GMT)
	Zone
ZGT	Zero Gravity Trainer
ZI	Zone of Interior
ZO	Station Identification Symbol, Orbiter X-Axis
ZPN	Impedance Pneumogram
ZS	Station Identification Symbol, SRB Z-Axis
ZT	Station Identification Symbol, ET Z-Axis
Z sub O	Orbiter Structural Body Reference, Z-Axis
Z sub P	Payload Structural Body Reference, Y-Axis
Z sub S	SRB Structural Body Reference, Z-Axis
Z sub T	ET Structural Body Reference, Z-Axis